

Product Catalogue



Issue 1

Intelligent Control Equipment for Life Safety

Fire Detection

Gas Extinguishing

Hearing Impaired Alarms

Disabled Refuge Alarms



www.advel.co.uk





2	Introduction Advanced Electronics Limited - Company Profile
8	Ex-3000 Range Gas Extinguishant Release Panels
18	Mx-4000 Range EN-54 Analogue Addressable Fire Alarm Control Panels
30	Mx-5000 Range Next Generation of EN-54 Analogue Addressable Fire Alarm Control Panels
40	Ax-Range UL 864 '9th Edition' Analogue Addressable Fire Alarm Control Panels
50	Networking Ad-NeT Peer-to-Peer, Fault Tolerant Network for Fire Alarm Control Panels
54	Software Diagnostic and Control Software for Fire Alarm Control Panels
58	Peripherals An extensive range for Peripheral Hardware for Fire Alarm Control Panels
86	Custom Products Design and Manufacturing Services for Custom Products
90	Power Supply Units (PSU) A range of EN-54 approved switched-mode power supply units for fire applications
96	LifeLine DDA-Compliant Life Safety Products for the Hearing Impaired
102	VoCall A range of compact and networked systems for Disable Refuge

Introduction

Advanced Electronics Limited

“Listening to our customers is fundamental to the design and development of our products”



The Company

Advanced Electronics is an independent, forward-thinking company specialising in high quality, innovative control and indicating equipment for fire and safety system markets worldwide.

The operation is based around a strong, customer focused, management team and a collection of experienced industry professionals.

All of the company's products are manufactured in the UK at a state of the art production facility in Northumberland, which also houses the head office and sales operation. In addition, the company has a dedicated research and development establishment with in-house training and conferencing facilities based in South Yorkshire. Additional support is provided by satellite sales operations across the UK and selected areas overseas.

A trading subsidiary in the USA, together with a sales office in the Middle East, combined with carefully selected distribution and agency partners across Europe, Asia and the Middle East provide a network of associates covering over 40 key territories around the world.



UK Head Office and
Manufacturing Facility



'Centre of Excellence'
Barnsley, UK



Middle East
Office, Dubai

“Total in-house manufacturing”

Manufacturing

All aspects of the manufacturing process including PCB population, metal fabrication, final assembly and test are carried out and controlled in-house at the company's UK based production facilities in Northumberland.

In a global market all of the products manufactured by Advanced Electronics have to be high quality, leading edge and competitive. To achieve this from a UK manufacturing base isn't easy and requires the development of cost effective designs based around a strict set of proprietary rules and their effective implementation within a flexible 'lean' manufacturing process.

This was achieved and the position is maintained by on-going workforce development and significant levels of 'long term' investment into the latest state of the art production machinery and equipment. This is also supported on the shop floor where the manufacturing processes are continually assessed and improved within a flexible quality assurance system backed up by independent third party accreditation.



Introduction

Advanced Electronics Limited

“It is essential to be a world-class manufacturer to successfully compete in the global marketplace for our products”



Goals and Objectives

The company's stated mission is “to be the best independent fire and safety systems manufacturer in the world”. This will be achieved by anticipating and satisfying the market needs and by utilising new and emerging technologies to provide dependable, high quality and innovative equipment supported by first class technical support, training and service.

This mission can only be fulfilled by listening to customers and providing them with the products they want and the support services they deserve. Advanced have followed this principle and formed close working relationships with customers and trade partners to produce a range of technically advanced equipment which is approved and accepted around the world.

In addition to the products, the company realised that to effectively compete in the global market place it would need to develop a world-class manufacturing operation and provide exceptional support. Through continued investment in technology, facilities, equipment and staff development this has now been achieved and the business prides itself on its ability to respond rapidly to both customer demand and technical advances in the field.



“We see training and customer support as key aspects of the business”



Products and Customer Service

Advanced Electronics manufactures a wide-ranging choice of control and monitoring equipment for fire, smoke control, suppression and emergency lighting. The company can also source and supply third party system components and offer a design and manufacturing service for bespoke solutions to meet specific customer requirements.

In addition to its products, the company considers customer support and training to be key aspects of its business. Customer support is just a phone call away and is provided by experienced engineers who have in-depth knowledge of the products.

Training is provided free of charge at a number of dedicated locations in the UK and overseas. The objective of the training is to enable installation and system design engineers to maximise the potential of the advanced features and benefits provided by the products. To achieve this Advanced have developed the 'Passport' training programme which provides modular hands on training on all aspects of design, installation, commissioning and maintenance of the products into both commercial and industrial installations. Do you have your passport?



Introduction

Advanced Electronics Limited

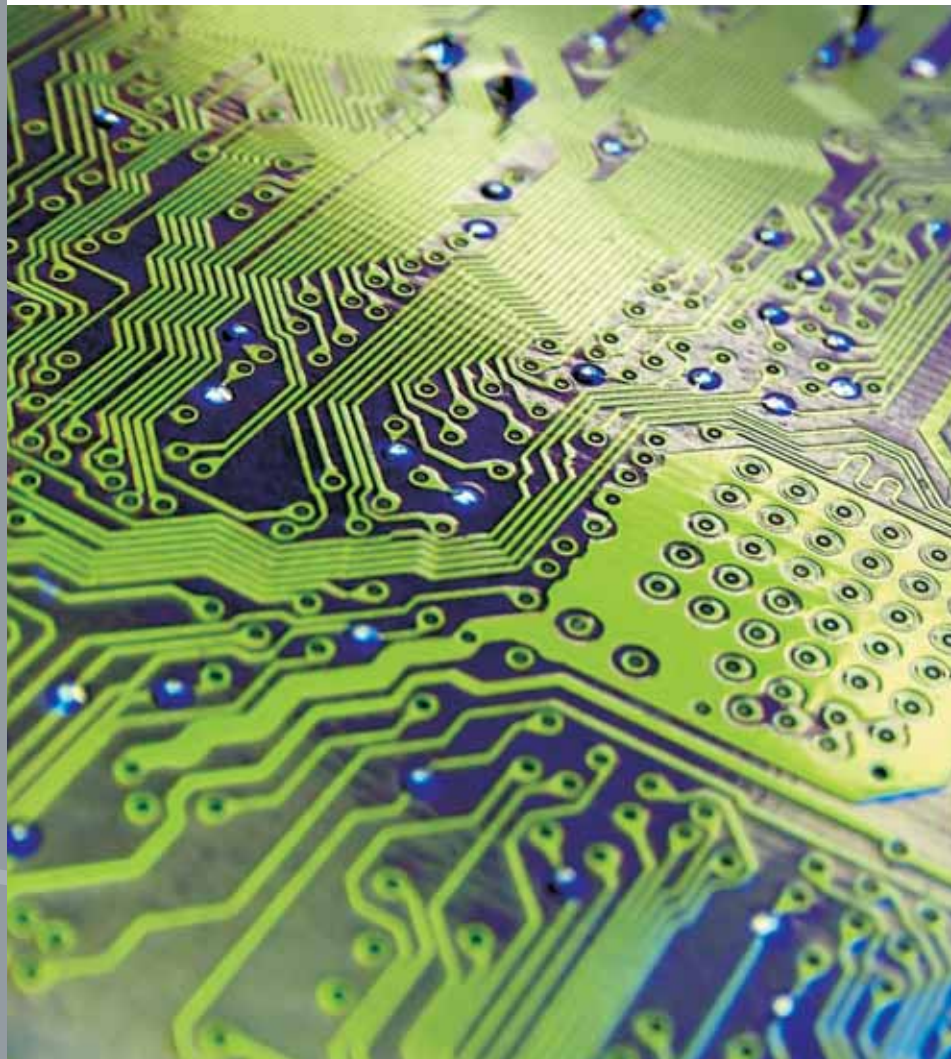
“Advanced have a policy of aligning R&D investment with company growth and allocates a significant percentage of the company’s turnover into this area”



Research and Development

To make sure that Advanced achieves its primary objective of providing a wide range of innovative leading edge products requires a company wide commitment and dedication to continuous new product development. Advanced have a policy of aligning R&D investment with company growth and allocates a significant percentage of the company’s turnover into this area.

Based in South Yorkshire the R&D department, is a bright, airy, state of the art facility with, functional labs and in house EMC and environmental test facilities. This ‘Centre of Excellence’ is the base for a number of experienced, dedicated engineers who, over the last 20 years, have been individually and collectively responsible for some of the leading innovations and product designs in the field of fire and safety systems around the world.

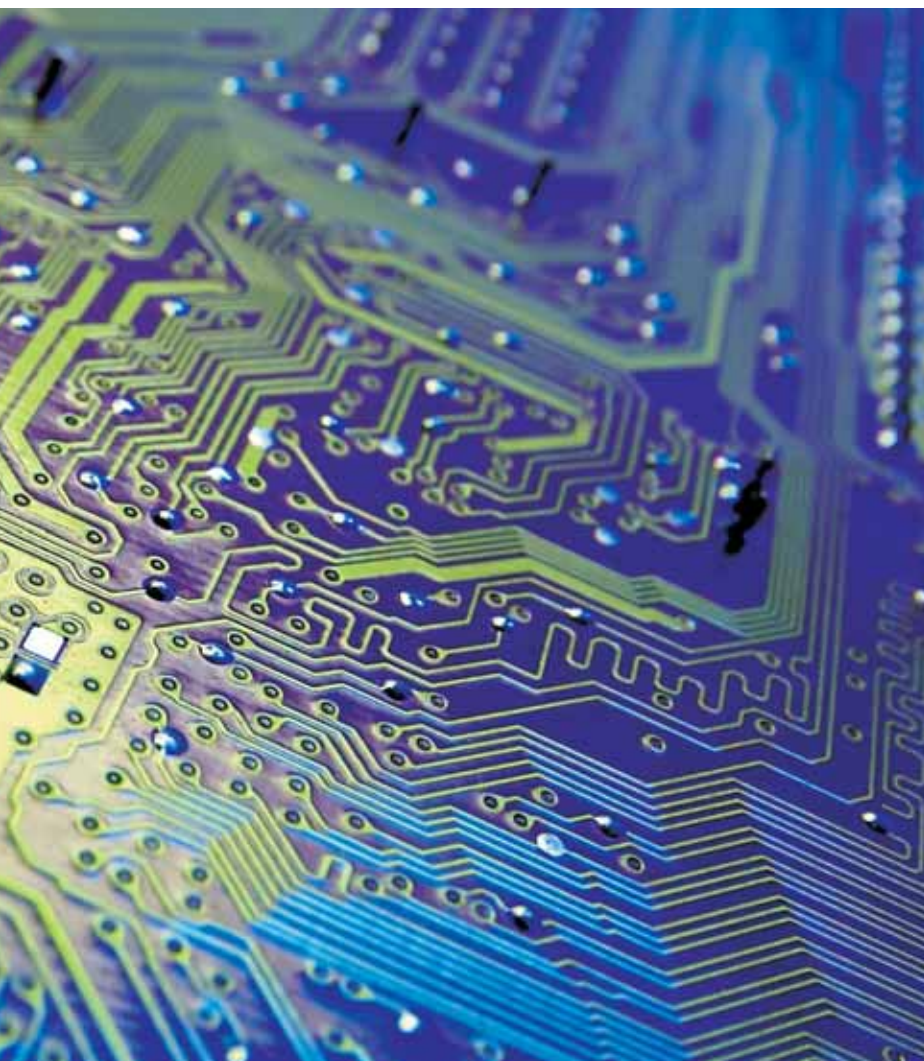


“Quality and reliability are over-riding themes throughout all stages of the design, manufacture, sales and support functions”

Quality and Approvals

Quality and reliability are over-riding themes throughout all stages of the design, manufacture, sales and support functions. The company believes that quality control is a collective responsibility, achieved through continual attention to customer feedback and business intelligence. By mapping this information back into the product development process and combining it with an innovative approach, Advanced stays in tune with, and ahead of, the market.

The company has full multi-site ISO9001 accreditation on both manufacturing and design from the British Standards Institute (BSI) and the Loss Prevention Certification Board (LPCB). In addition to total compliance with UK and overseas industry-recognised standards, Advanced also insists on independent third party approval of its products, many of which have achieved certification to international standards from a number of UK and overseas testing bodies.



Ex-3000

Gas Extinguishant
Release Control Panels

“With gas panels often protecting high cost, high risk areas it’s good to know that the Ex-3000 is approved to the most rigorous of European standards, providing peace of mind for both designers and end-users.”



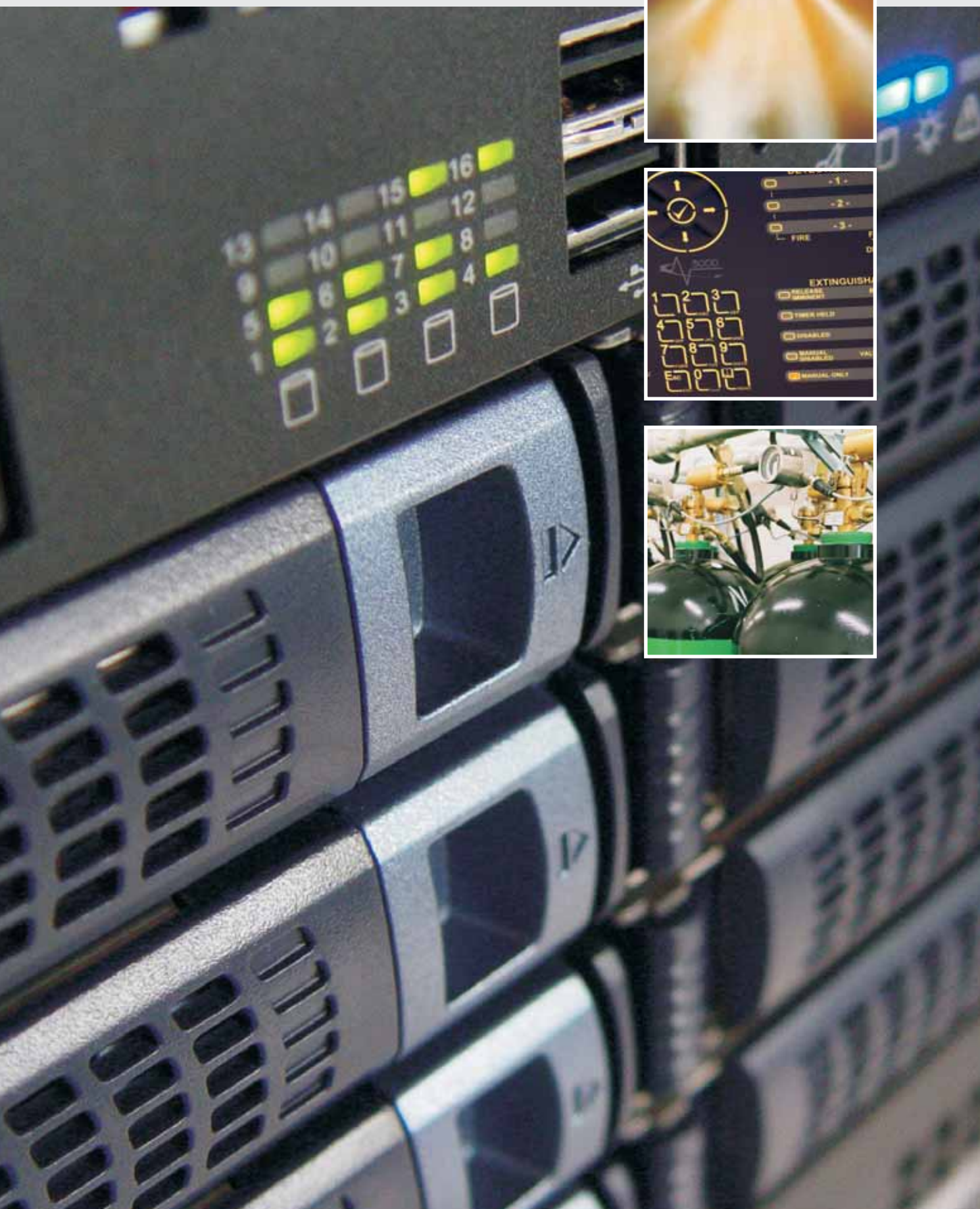
The Ex-3000 is one of the first extinguishant release control panels in the UK to be approved to EN 54 part 2 & 4 and EN 12094-1.

With gas panels often protecting high cost, high risk areas it’s good to know that the Ex-3000 is approved to the most rigorous of European standards, providing peace of mind for both designers and end-users.

As with all Advanced control panels, the Ex-3000 is packed with unique features, including a large LCD graphical display and keypad. The control panel comes with 3 detection zones, time & date-stamped log, advanced cause-and-effect and extensive I/O.

The Ex-3000 detects fires in the same manner as a conventional fire alarm panel, but in addition to triggering an alarm, it can also control the release of an extinguishing agent. To avoid false discharges, the Ex-3000 can utilise coincidence detection or 'double knock' requiring activation of a fire detector in 2 separate zones before activating a gas release.

Optional accessories include networked Remote Status Panels, Hold or Abort pushbuttons and Active EOL units - making it one of the most advanced solutions available.



Ex-3001

Three Zone Automatic Gas Extinguishing Panel

Advanced Fire Panel Technology

The Ex-3000 series, three zone automatic extinguishing panel is approved to EN12094-1 (European standard for Fixed Firefighting Systems-Components for Gas Extinguishing Systems) and EN54-parts 2 and 4.

The Ex-Extinguishing system detects a fire in the same manner as a fire alarm system, but in addition to sounding alarms, it also controls the release of an extinguishing agent.

The extinguishing agent can take many forms from CO2 through to specialist gasses developed solely for extinguishing purposes. The agent is released into the atmosphere in the area where a fire has been detected reducing the density of oxygen in the atmosphere around the fire, thus extinguishing the fire.

The Ex-Extinguishing system is used primarily in areas of significant value/strategic importance to businesses e.g. computer suites, telecom switch-rooms thus providing cost effective solution to protect your work place.



BS EN 54-2 & 4 & EN12094-1
KM 541651



0086-CPD-541661

Features

- User Friendly Graphical LCD Display providing clearer status information and programming routines
- Multiple Languages
- Slide in Labels
- Pass-code replaces physical key for level-2 access (though optional key-switch may still be fitted if key is preferred).
- Time & Date- stamped event log and improved diagnostics
- Company Logo can be displayed on LCD during normal conditions
- 3 Year Warranty as Standard
- RS485 for Remote Status Indicators
- User friendly PC Download tool via USB connection

Key Features

EN12094 part 1, EN54 part 2 & 4 Approved

Full CPD Approval

Alphanumeric Keypad

Logo Programming Software

3 Year Warranty as standard

Real-time clock and time & date-stamped event log

Software extraction tool for downloading configuration and event logs

Large LCD/Digit Count Down Timer

Specification

Base Technology	Flash based Processor with Real Time Clock with time stamped event log
Display	Backlit 128 x 64 Graphical LCD
LED Indicators	Remote Status indicators are supported via RS485
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Sound Alarms
Number of Conventional Detection Zones	3x Conventional detection zones (inc. support for I.S. barrier)
Flooding / Extinguishing Zones	1x Flooding / Extinguishing Zones - Support for both Solenoid and Metron type actuators
On Board Sounder circuits	3 x 700mA 21-28VDC
On Board Relays	4 x 1A 30VDC Relay outputs (Fire, Fault & 2 Programmable)
Auxiliary Supply	2 x 400mA Aux supply outputs 21-28 VDC (1 switched)
Programmable Outputs	Support for 2 or 8 additional programmable outputs via Exp-002/8
Switch Inputs	4 x Programmable, 1 x manual Trigger, 6 x Release related (Mode Select, Valve Monitor, Pressure Monitor, Hold, Abort & Flow)
Countdown Timer	Large digit countdown timer
Mains Supply	3A Universal switch mode P.S.U.
Battery Capacity	24V 7Ah
Charger Current	1A
USB ports	1 x USB port onboard for PC Download
Event Log	1000 event time stamped event log
Enclosure / Colour	Steel IP30 / Grey RAL7035
Cable Entry	17 knockouts in the top, 13 knockouts in the back
Size H x W x D mm / Weight	330 x 400 x 95
Approvals	EN12094-1, EN54-2 & EN54-4 Approved

Order Codes

Ex-3001: Extinguishing Control Panel

Options

Exp-002/8F: Programmable 2 way or 8 way relay card - Fitted

Exp-001: Enable controls (Trapped) key switch assembly

Exp-001F: Enable controls (Trapped) key switch assembly Fitted

Exp-002: Mode Select (Un-trapped) key switch assembly

Exp-002F: Mode Select (Un-trapped) key switch assembly Fitted

Ex-3020 & Ex-3030

Remote Status Indicator Panels

Advanced Fire Panel Technology

The Remote Status Indicators are available in two formats, a basic display only with optional key switches or a manual release version with optional keyswitch for automatic/manual mode.

The Ex-Extinguishing system detects a fire in the same manner as a fire alarm system, but in addition to sounding alarms, it also controls the release of an extinguishing agent.

The extinguishing agent can take many forms from CO₂ through to specialist gasses developed solely for extinguishing purposes. The agent is released into the atmosphere in the area where a fire has been detected reducing the density of oxygen in the atmosphere around the fire, thus extinguishing the fire.

The Ex-Extinguishing system is used primarily in areas of significant value/strategic importance to businesses e.g. computer suites, telecom switch-rooms thus providing a cost effective solution to protect your work place.



Features

- RS485 Network Port
- Small and Compact
- Optional Manual Release or Display Only
- Surface Mount or Semi Flush Option
- Up to 7 Remote Status Indicators per one Ex-3001 Panel
- 3 Year Warranty as standard
- Key Switch Option for mode select or enable controls
- Multiple Languages
- Slide In Labels

The Ex-Remote Status Indicators are primarily used in areas of significant value/strategic importance to businesses providing a cost effective solution to remotely monitor the status of the system.

Key Features

Large Graphical LCD Display
Alphanumeric Keypad
Logo Programming Software
3 Year Warranty as standard

Programmable Inputs & Outputs
RS-485 Network
24v DC Supply
Small & Compact

Specification

	Ex-3020	Ex-3021	Ex-3030	Ex-3031
Enclosure	Steel Ip30 (optional IP65 Version available upon request)			
Dimensions H x W x D mm	190 x 235 x 45			
Environmental Class	Class A - Indoor IP30 0°C to 40°C			
Humidity	95% Max			
Weight (excluding batteries)	1.5Kg			
Cable Entries (20mm knockouts)	4x top and 4x bottom rear			
Power Supply	24V DC Nominal (18V - 28V DC); 35mA max (backlight on), 20mA max (backlight off)			
Relay Outputs (Optional)	2x rated at 1A 30 V AC/DC (max) 10mA 5V (min) programmable (requires EXP-002)			
Key Switches 1 x programmable	-	Fitted	-	Fitted
Manual Release	No	No	Yes	Yes
External Inputs (Monitored)	2x Programmable			
Communications	RS485 to EX-3000 Series Control Panel			
Display	Graphic LCD 124 x 64 pixels			
LED Indicators	12 in Total, Fire, Release, Timer, Disablement, Mode and Fault Indications.			
Approvals	BS EN 12094-1:2003, BS EN 54-2: 1998+A1			

Order Codes

Ex-3020: RSI c/w LCD + LED indicators

Ex-3021: RSI c/w LCD + LED indicators with Mode Select Key Switch

Ex-3030: RSI c/w LCD + LED indicators with Manual Release button

Ex-3031: RSI c/w LCD + LED indicators with MR button and Mode Select Key Switch

Options

Exp-001: Enable controls (Trapped) key switch assembly

Exp-002: Mode Select (Un-trapped) key switch assembly

Exm-002: Semi-Flushing Bezel

Hold / Abort

Extinguishing Peripheral

Advanced Gas Panel Technology

The Hold and Abort switch modules complement the Ex-3000 series Extinguishing panels.

The modules comply with the requirements of BS7273-1.

The switches are easy to wire and multiple units can easily be daisy-chained together on an input circuit.

A range of finishes are available - White, Stainless Steel and Brass Trims.

Alternatively, the unit can be supplied in an IP65 rated enclosure.

The standard units can be surface mounted or semi-flush mounted onto standard 3½” electrical boxes. The IP65 unit is surface mounted.

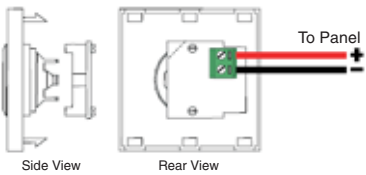
All units are provided with an End of Line Resistor.

Applications / Limitations

For use in Gas Extinguishing installations to hold or abort the release of the extinguishant.

Compatibility

Compatible with the Ex-3000 Series Gas Extinguishing Panel and Remote Status Indicator panel input circuits.



Features

- Simple to install
- Range of finished available
- Surface or flush mount
- IP65 Option
- Complies with BS7273-1 requirements
- Standard Units available in White Plastic Finish

Specification

Dimensions (Plastic Unit)	Overall 87mm x 87mm x 41mm, Back Box 87mm x 87mm x 29mm
Minimum Depth behind cover	Overall 87mm x 87mm 47mm, Back Box 87mm x 87mm x 44mm
Dimensions (IP65 Unit)	35mm
Environmental Class	Overall 72 x 72 x 62 (including switch actuator)
Humidity	Indoor 0°C to 40°C, 95% Max
End-of-Line Resistance	6800Ω
SW#1 Active Resistance	470Ω
Maximum Operating Voltage	30V DC

Order Codes:

- Exp-003-001: HOLD Switch, Standard Plastic Enclosure
- Exp-003-002: HOLD Switch, Stainless Steel Trim Cover Plate
- Exp-003-003: HOLD Switch, Brass Trim Cover Plate
- Exp-003-065: HOLD Switch, IP65 Plastic Enclosure
- Exp-004-001: ABORT Switch, Standard Plastic Enclosure
- Exp-004-002: ABORT Switch, Stainless Steel Trim cover Plate
- Exp-004-003: ABORT Switch, Brass Trim Cover Plate
- Exp-004-004: ABORT Switch, IP65 Plastic Enclosure

Exp-005/006

End Of Line Modules

Advanced Gas Panel Technology

The Exp-005 module provides a simpler way of correctly terminating the switch input circuits of the Ex-3000 Series Extinguishing Control Panel / System

The module consists of a printed circuit card and connector.

The Exp-006 module provides active end-of-line monitoring for zone circuits fitted with detector diode bases in accordance with BS5839-1

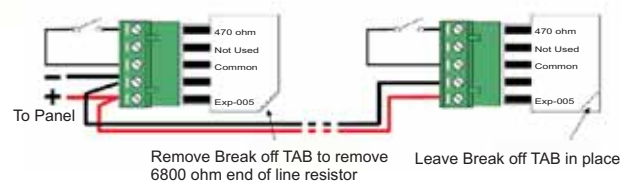
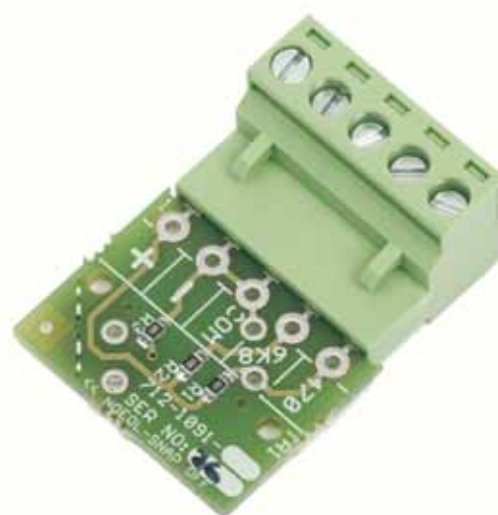
The module will create an fault condition on the panel if a detector is removed from its base, without affecting the remainder of the zone.

Applications / Limitations

For use in Gas Extinguishing installations where an EOL module is required.

Compatibility

Compatible with the Ex-3000 Series Gas Extinguishing Panel input circuits.



Specification: Exp-005: Switch

Dimensions (Overall)	38 x 27 x 15		
Dimensions (PCB)	27 x 20 x 2		
End-of-Line Resistance	6800Ω	Usage	
		General Inputs	Valve Input
SW #1 Active Resistance	470Ω	Switch	Closed Switch
SW#2 Active Resistance	6800Ω	Not Used	Open Switch
Maximum Operating Voltage	30V DC		
Environmental Class	Indoor 0°C to 40°C		

Specification: Exp-006: Zone Active End-of-Line Module

Dimensions (PCB)	27mm x 20mm x 7mm(max)
End-of-Line Resistance	6800Ω
Environmental Class	Indoor 0°C to 40°C
Humidity	95% Max
Operating Voltage	17-30V DC
Zone Voltage	20V DC typical

Exp-002/008

2 or 8 Way Relay Output Card

Advanced Gas Panel Technology

The Exp-008, 8 Way Relay Output Card is an internal peripheral for use with The Ex-3000 series control Panels.

This additional pcb provides a cost effective solution to providing 8 individually programmable 1 Amp rated, volt free, clean contact outputs.

The Exp-008 connects directly to the panels motherboard in which each output can be individually programmed.

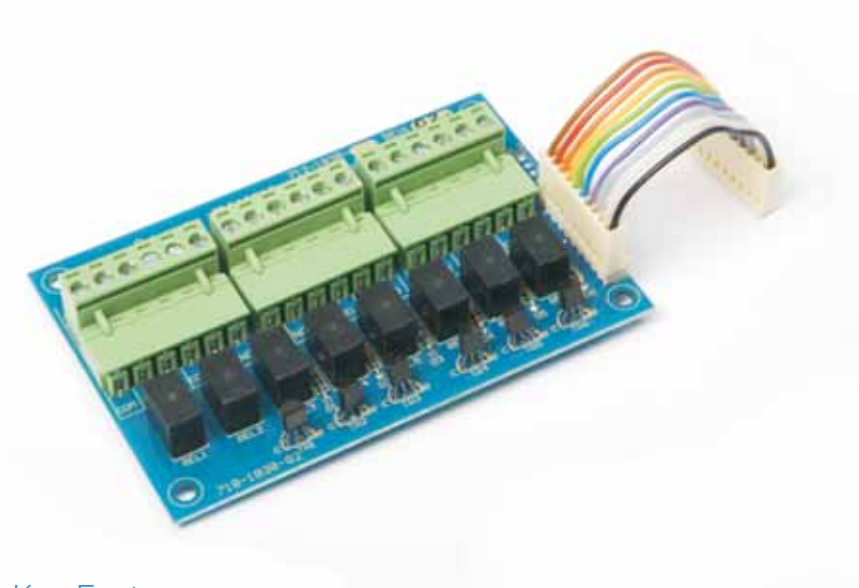
Applications

Ideal for any application where a number of programmable outputs are required at the panel.

Programming Features

- Each output individually programmable
- Optional fail safe setup
- Easily programmable by on board keypad
- Instant response time

These features not only aid commissioning and cut down on expensive ancillary hardware but also allow the system to be easily configured to provide additional outputs for the more complex cause and effect configurations using standard products.



Key Features

- 8 Individual Programmable Outputs
- Fast Instant Response
- Each Output 30V AC/DC, 1 Amp Rating
- Cost effective against ancillary hardware

Specification

Relay Outputs	2 or 8 volt free contacts - 2 x changeover + 6 x normally open which can be inverted
Contact Rating	1 Amp 30 V DC/AC Maximum
Power Supply	24 V dc (derived from panels motherboard)
Supply Current	65 mA maximum (all relays energised)
Protocols	As per detector manufacturer's specifications
Dimensions	70 mm (H) x 105 mm (W) x 18 mm (D)

Order Codes

Exp-002*: 2 Way Relay Output Card

Exp-008*: 8 Way Relay Output Card

*F: Relay Output Card fitted within Ex-3001Control Panel

Compatibility

The Exp-002/8 is fully compatible with the Ex-3001 Control Panel
Mounting pillars are provided on the back box to mount this card.

Limitations

Each output is fully programmable for any output function allowed within the Ex-3001 Control Panel.
Only one Relay O/P Card can be fitted to a Ex-3001 Control Panel.

PC-NeT Software

Logo & Extraction Tools

Advanced Gas Panel Technology

To support the new products an extensive suite of PC tools have been developed with advanced programming features.

This user friendly package's are primarily an easy to use Logo Programming application and a user friendly PC "Extraction Software".

Features at a Glance

- USB Upload/Downloads
- User friendly 'Windows' based software
- XP & Vista Compatible
- Export Information to office applications
- Download Event Logs and system configuration
- Customised Printouts
- Panel Branding via electronic logo

Compatibility

Compatible with the Ex-3000 Series gas Extinguishing Control Panel (Ex-3001)



Specification

- PC-NET-007, Logo programming software permits the creation of and allows upload to the Ex-3000 series, a customised electronic logo allowing the product to be branded by the end user
- PC-NET-013, Ex Extraction Software allows full download of Gas system configuration and event log. The user friendly software provides a quick reporting log book, showing full system configuration, full event logs and a quick reporting guide to customise system reports for end users.

Order Codes

PC-NET-007: Ex-3000 Series Logo Programming Software

PC-NET-013: Ex-3000 Series Extraction Software

Mx-4000

EN-54 Analogue Addressable
Fire Alarm Control Panels

“The Mx-4000 was the first series of panels to receive EN54 approval from BSI and proudly bear the internationally recognised quality Kite Mark.”



The Mx-4000 series of analogue addressable fire alarm control panels were the first panels to receive EN54 approval from the British Standards Institute (BSI) and proudly bear the internationally recognised quality Kite Mark. The full range, from one to eight loops, has been approved to EN-54, parts 2 and 4 for use with Apollo XP95 and Discovery, Hochiki ESP, Nittan Evolution and Argus Vega devices.

An extensive range of peripherals is available for the Mx-4000, including input/output modules, printers and a variety of graphical indication units, together with easy to use software for programming, diagnostics and control.

The Mx-4000 has been field proven around the world and used extensively in a wide range of fire detection applications for a number of years.



Mx-4100

Single Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-4100 comes fitted complete with an internal loop driver card and 2 on-board sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flashbased microprocessor technology driven by an on-board 24V DC, 2 Amp High Efficiency Switched Mode power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys makes learning this control panel user friendly as well as installer friendly due to the uncomplicated, trouble free, commissioning and fault finding.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC-NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-4000 series Fire panels.

User-friendly Windows based PC-NeT configuration software includes a virtual panel allowing for remote diagnostics via a low cost modem connection, saving time and expense for any travelling or maintenance.



BS EN 54-2 & 4
KM 69695
CE
0086-CPD

Features

- On board internal loop card.
- Full support of Apollo (Discovery, Xplorer S90 & XP95) , Hochiki ESP protocols.
- Advanced graphical LCD user interface with up to 250 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- Optional remote printer.
- Dual, flash based, microprocessor technology with on-board Real Time Clock.
- Dedicated RS232 serial port for direct PC or modem connection.
- Installer friendly 'Auto-learn' and 'Loop Detection' facility for uncomplicated, trouble-free, commissioning and fault finding.
- Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination.
- When connected to the fault tolerant *Ad-NeT* network, the panel operates as a true peer-to-peer interface (with up to 1000 shared zones) with full cross panel reporting, control and cause and effect functionality.

Key Features

Single Loop Control Panel
EN54 Parts 2 & 4 'Approved'
Apollo/Hochiki Protocol
3 Year Warranty as standard

Global Compliance
Multiple Languages
Fully Networkable

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate
Protocols	Apollo (S90,XP95, Xplorer and Discovery), Hochiki ESP, Nittan Evo & Argus Vega
Number of Fire Zones	250 'Dynamix' (100 per individual panel)
Number of Loops	1
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	2 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Open Collector / Logic Outputs	2 x Programmable (via optional 2-way relay card)
Programmable Switch Inputs	8 Volt Free Digital Inputs
Total Available Output Current	2 Amps Maximum Available for loop current + sounder outputs + auxiliary supply
Mains Supply	230 V 50 Hz AC (+10%, -15% tolerance) 0.4 Amp
Battery Capacity	24v 7 Ah internal. 24v 12 Ah external
Charger Current	0.4 Amp DDP monitored, temperature compensated integral charger
Serial ports	1 RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Optional plug in Network card
Printer (Optional)	External Serial Printer
Enclosure / Color	Steel IP30 / Beige (textured)
Cable Entry	20mm Knock-outs. 7 x top, 7 x top rear
Size H x W x D mm / Weight	Mx-4100 : 320 x 345 x 85 / 6 Kg Mx-4100/L or /LG : 340 x 355 x 125 / 7Kg
Metalwork Options	Mx-4100 : Back Box Only (When Recessing) 320 x 345 x 70 / 2Kg Mx-4100/L or /LG : Back Box Only (When Recessing) 340 x 355 x 100 / 3Kg Flushing Bezel, Battery Box and a range of special finishes including Stainless Steel, Brass and Chrome
Approvals	BS EN54-2:1998, BS EN 54-4:1998

Order Codes

Mx-4100: Single Loop Analogue Addressable

Mx-4100L: Single Loop Analogue Addressable
c/w Lockable Hinged

Mx-4100/LG: Single Loop Analogue Addressable
c/w Lockable Hinged Door & Perspex Kit

Options

Mxp-003: Standard Network Card

Mxp-003/9: Standard/Fault Tolerant Network Card

Mxp-024F: 20 Zone LED Card for Mx-4100 Fitted

Mxm-001: Semi-Flushing Bezel

Mx-4200

1-2 Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-4200 series is fully expandable from 1 to 2 loops complete with 2 on-board sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flashbased microprocessor technology driven by a 4 Amp power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys makes learning this control panel user friendly as well as installer friendly due to the uncomplicated, trouble free, commissioning and fault finding.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC-NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-4000 series Fire panels.

User-friendly Windows based 'PC-NeT' configuration software includes a virtual panel allowing for remote diagnostics via a low cost modem connection, saving time and expense for any travelling or maintenance.



BS EN 54-2 & 4
KM 69695



0086-CPD

Features

- Fully expandable from 1 to 2 loops via common plug in loop driver boards.
- Full support of Apollo (Discovery, Xplorer S90 & Xp95). Hochiki ESP, Nittan Evolution and AV protocol.
- Advanced graphical LCD user interface with up to 1000 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- 4 Amp power supply and charger to EN54 part 4.
- Dedicated RS232 serial port for direct PC or modem connection.
- Dual, flash based, microprocessor technology with on-board Real Time Clock. Optional on-board or remote printer.
- Installer friendly 'Auto-learn' and 'Loop Detection' facility for trouble-free, commissioning. Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination.
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 1000 shared zones) with full cross panel reporting, control functionality.

Key Features

Fully Expandable from 1 to 2 Loops	Global Compliance
En54 Parts 2 & 4 'Approved'	Multiple Languages
Apollo,Hochik,Argus & Nittan Protocol	Fully Networkable
3 Year Warranty as standard	

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240 x 64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate
Protocols	Apollo (S90,XP95, Xplorer and Discovery), Hochiki ESP, Nittan Evo & Argus Vega
Number of Fire Zones	1000 'Dynamix' (200 per individual panel)
Number of Loops	1-2. Expandable via individual plug-in loop driver
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	2 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Open Collector / Logic Outputs	2 x Programmable (via optional 2-way relay card)
Programmable Switch Inputs	8 Volt Free Digital Inputs
On Board Power Supply	4 Amp High Efficiency Switched Mode
Mains Supply	230 V Ac (+10%, -15% tolerance) 50 /60 Hz 1.9 Amp
Battery Capacity	24v 18 Ah internal. 24v 48 Ah external
Charger Current	2.0 Amp DDP monitored, temperature compensated integral charger
Serial ports	1 RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Optional plug in Network card
Printer (Optional)	Optional on-board or External Serial Printer
Enclosure / Colour	Steel IP30 / Beige (textured)
Cable Entry	20mm Knock-outs. 18 x top, 9 x top rear and 2 x bottom
Size H x W x D mm / Weight	475 x 450 x 115 / 10Kg, 475 x 450 x 188 / 10.5Kg (/D Deeper Enclosure) Back Box Only (When Recessing) 475 x 450 x 100 Deeper Back Box Only (When Recessing) 475 x 450 x 173
Metalwork Options	Flushing Bezel, Ancillary Enclosure & Battery Box
Approvals	BS EN54-2 & 4:1998

Order Codes

Mx-4200*: 0 to 2 Loop Analogue Addressable (0 Loop cards)

Mx-4200/D*: Mx-4200 with Deep enclosure for 2 x 38 Ahr Batteries

Mx-4201*: Mx-4200 c/w 1 Loop Cards Fitted & Tested

Mx-4201/D*: Mx-4200 with Deep Back Box c/w 1 Loop Card Fitted & Tested

Mx-4202*: Mx-4200 c/w 2 Loop Cards Fitted & Tested

Mx-4202/D*: Mx-4200 with Deep Back Box c/w 2 Loop Cards Fitted & Tested

*Add /N for Nittan Evolution Protocol

*Add /V for Argus Vega Protocol

Mx-4400

1-4 Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-4400 series is fully expandable from 1 to 4 loops complete with 4 on-board sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flashbased microprocessor technology driven by a 5 Amp power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys makes learning this control panel user friendly as well as installer friendly due to the uncomplicated, trouble free, commissioning and fault finding.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC -NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-4000 series Fire panels.

User-friendly Windows based 'PC-NeT' configuration software includes a virtual panel allowing for remote diagnostics via a low cost modem connection, saving time and expense for any travelling or maintenance.



BS EN 54-2 & 4
KM 69695



0086-CPD

Features

- Fully expandable from 1 to 4 loops via common plug in loop driver boards.
- Full support of Apollo (Discovery, Xplorer S90 & Xp95). Hochiki ESP, Nittan Evolution and AV protocol.
- Advanced graphical LCD user interface with up to 1000 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- 5 Amp power supply and charger to EN54 part 4.
- Dedicated RS232 serial port for direct PC or modem connection.
- Dual, flash based, microprocessor technology with on-board Real Time Clock. Optional on-board or remote printer.
- Installer friendly 'Auto-learn' and 'Loop Detection' facility for trouble-free, commissioning. Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination.
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 1000 shared zones) with full cross panel reporting, control functionality.

Key Features

Fully Expandable from 1 to 4 Loops	Global Compliance
En54 Parts 2 & 4 'Approved'	Multiple Languages
Apollo,Hochiki,Argus & Nittan Protocol	Fully Networkable
3 Year Warranty as standard	

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240 x 64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate
Protocols	Apollo (S90,XP95, Xplorer and Discovery), Hochiki ESP, Nittan Evo & Argus Vega
Number of Fire Zones	1000 'Dynamix'
Number of Loops	1-4. Expandable via individual plug-in loop driver
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	4 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Open Collector / Logic Outputs	8 x Programmable
Programmable Switch Inputs	8 Volt Free Digital Inputs
On Board Power Supply	5 Amp High Efficiency Switched Mode
Mains Supply	230 V Ac (+10%, -15% tolerance) 50 /60 Hz 1.7 Amp
Battery Capacity	24V 18Ah Internal, 24V 48Ah external
Charger Current	2.2 Amp DDP monitored, temperature compensated integral charger
Serial ports	1 RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Optional plug in Network card
Printer (Option)	Optional on-board or External Serial Printer
Enclosure / Colour	Steel IP30 / Beige (textured)
Cable Entry	200mm Knock outs. 18 x top / 9 x top rear and 2 x bottom
Size H x W x D mm	475 x 450 x 115 / 10Kg, 475 x 450 x 188 / 10Kg (/D Deeper Enclosure) Back Box Only (When Recessing) 475 x 450 x 100 Deeper Back Box only (when recessing) 475 x 450 x 173
Metalwork Options	Flushing Bezel, Ancillary Enclosure & Battery Box
Approvals	BS EN54-2 & 4:1998

Order Codes

Mx-4400*: 0 to 4 Loop Analogue Addressable (0 Loop cards)

Mx-4401*: Mx-4400 c/w 1 Loop Card Fitted & Tested

Mx-4402*: Mx-4400 c/w 2 Loop Cards Fitted & Tested

Mx-4403*: Mx-4400 c/w 3 Loop Cards Fitted & Tested

Mx-4404*: Mx-4400 c/w 4 Loop Cards Fitted & Tested

Mx-4400*/D:Mx-4400 c/w * Loop Cards Fitted & Tested with Deeper Enclosure for 2 x 38Ahr Batteries

*Add **/N** for Nittan Evolution Protocol

*Add **/V** for Argus Vega Protocol

Mx-4800

2-8 Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-4800 series is fully expandable from 2 to 8 loops complete with 8 on-board sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flashbased microprocessor technology driven by a 5 Amp power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys makes learning this control panel user friendly as well as installer friendly due to the uncomplicated, trouble free, commissioning and fault finding.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC -NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-4000 series Fire panels.

User-friendly Windows based 'PC-NeT' configuration software includes a virtual panel allowing for remote diagnostics via a low cost modem connection, saving time and expense for any travelling or maintenance.



Features

- Fully expandable from 2 to 8 loops via common plug in loop driver boards.
- Full support of Apollo (Discovery, Xplorer S90 & Xp95). Hochiki ESP, Nittan Evolution and AV protocols.
- Advanced graphical LCD user interface with up to 1000 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- 2 x 5 Amp power supply and charger to EN54 part 4.
- Dedicated RS232 serial port for direct PC or modem connection.
- Dual, flash based, microprocessor technology with on-board Real Time Clock. Optional on-board or remote printer.
- Installer friendly 'Auto-learn' and 'Loop Detection' facility for trouble-free, commissioning. Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 1000 shared zones) with full cross panel reporting, control functionality.



BS EN 54-2 & 4
KM 69695



0086-CPD

Key Features

Fully Expandable from 2 to 8 Loops	Global Compliance
EN54 Parts 2 & 4 'Approved'	Multiple Languages
Apollo,Hochiki,Argus & Nittan Protocol	Fully Networkable
3 Year Warranty as standard	

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240 x 64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate
Protocols	Apollo (S90,XP95, Xplorer and Discovery), Hochiki ESP, Nittan Evo & Argus Vega
Number of Fire Zones	1000 'Dynamix'
Number of Loops	2-8. Expandable via individual plug-in loop driver
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	8 x 1 Amp Programmable
On Board Relays	4 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	2 x 24v DC, 500mA
Open Collector / Logic Outputs	16 x Programmable
Programmable Switch Inputs	16 x Volt Free Digital Inputs
On Board Power Supply	2 x 5 Amp High Efficiency Switched Mode
Mains Supply	230V Ac (+10%, -15% tolerance) 50 /60 Hz AC 2 Amp maximum
Battery Capacity	2 sets of 24v 4 Ah internal Minimum. 24v 38 Ah Maximum
Charger Current	2 x 2.4 Amp DDP monitored, temperature compensated integral charger
Serial ports	2 RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Standard Network cards fitted or optional Fault Tolerant version
Printer (Optional)	Optional on-board or External Serial Printer
Enclosure / Colour	Steel IP30 / Beige (textured)
Cable Entry	20mm Knock-outs. 36 x top, 9 x top rear and 2 x bottom
Size H x W x D mm / Weight	950 x 450 x 188 / 23Kg
	Back Box Only (When Recessing) 950 x 450 x 173
Metalwork Options	Semi Flushing Bezel
Approvals	BS EN54-2 & 4:1998

Order Codes

Mx-4802: Mx-4800 c/w 2 Loop Cards Fitted & Tested

Mx-4803: Mx-4800 c/w 3 Loop Cards Fitted & Tested

Mx-4804: Mx-4800 c/w 4 Loop Cards Fitted & Tested

Mx-4805: Mx-4800 c/w 5 Loop Cards Fitted & Tested

Mx-4806: Mx-4800 c/w 6 Loop Cards Fitted & Tested

Mx-4807: Mx-4800 c/w 7 Loop Cards Fitted & Tested

Mx-4808: Mx-4800 c/w 8 Loop Cards Fitted & Tested

*Add /N for Nittan Evolution Protocol

*Add /V for Argus Vega Protocol

*Add /FT for Fault Tolerant variant

Mx-4010/20

Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

Based around two core products, the Mx-4010 Remote Display Terminal (*RDT*) and the fully functional Mx-4020 Remote Control Terminal (*RCT*).

Both remote terminals utilise the same graphical LCD user interface that can be found on the Mx-4000 series fire panels and are based upon the same advanced, flash based, microprocessor technology.

All Mx-4000 series panels and remote terminals can communicate over the same 2-core network cable.

Integral network interface incorporating a special screen termination to prevent mains frequency earth-loop currents flowing between network nodes.

The 'Ad-NeT' network operates as a true peer-to-peer system with full cross panel reporting, control and cause and effect functionality of up to 1000 zones.



Features

- The display information is fully programmable by individual zone or sector and can display any combination of fires, faults, pre-alarms or plant alarms. E.g. can display all information in its own sector, but can only show fire signals from other sectors of a building.
- Both remote terminals incorporate buzzer mute, view, enable/disable and test facilities with dedicated system and navigation keys for simple user control.
- The *RCT* has additional sector based control keys for Evacuate, Silence, Resound and Reset, which allows other networked panels to selectively respond to controls as programmed. E.g. on a site with multiple buildings, a user may be allowed to silence and reset fires originating in their own building. Fires originating from other buildings are displayed but cannot be reset.
- Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- By using 'flash memory' and an advanced graphical display the remote terminals can be easily configured to operate in virtually any language, with any character set and allows for the installer's logo and company details to be displayed on the LCD display during normal operation.

Key Features

Networked for System Display or Control
User Friendly Graphical LCD Display
Ad-NeT/Ad-NeT+ Compatible

Small & Robust
24v DC Operating voltage
3 Year Warranty as standard

Specification

Display	Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Keypad	Alpha Numeric Keypad, Navigation Keys & on-board buzzer mute facility
Controls (Mx-4020 RCT only)	System Keys for Reset, Silence, Resound & Evacuate
Key-Switch Input	Optional Level 2 Access Enable key switch
Power Supply Input	24 VDC, 150mA (/FT: 188mA) Operating range 15-30V
External Supply Monitoring	Monitored External Fault Input
Number of Fire Zones	2000 'Dynamix'
USB/Serial Ports	1 x USB & 1x RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows
Enclosure	Steel IP30
Cable Entry	20mm Knock-outs. 4 x top and 4 x rear
Colour	Steel IP30 / Beige (textured)
Size H x W x D mm	Enclosure: 218 x 300 x 44 Back Box Only (When Recessing) 218 x 300 x 30
Metalwork Options	Semi Flushing Bezel, Special Finishes including Brass & Chrome

Order Codes

Mx-4010: (RDT) Remote Display Terminal
MX-4020: (RCT) Remote Control Terminal
Mx-4010/FT: (RDT) with Fault Tolerant Network I/F
Mx-4020/FT: (RCT) with Fault Tolerant Network I/F

Options

Mxm-008: Semi Flush Bezel
Mxp-018: Access Enable Key-Switch

Mx-5000

**Next Generation of
EN-54 Analogue Addressable
Fire Alarm Control Panels**

“The Mx-5000 has been developed following an extensive research programme involving industry professionals, customers and end-users”



The Mx-5000 is the next generation of analogue addressable fire alarm control panels that are fully compliant with EN54 part 2, 4 and 13 and CE marked under the Construction Products Directive (CPD). The Mx-5000 has been developed following an extensive research programme involving industry professionals, customers and end-users.

The panels have been designed to be flexible and powerful with an intuitive user interface. Each panel has a high resolution LCD display with a high-tactile feedback membrane keypad. This combination provides a concise menu-based, high resolution, graphical user interface with simple select and click programming to aid engineering configuration and end-user operation.

An extensive range of peripherals is available for the Mx-5000, including input/output modules, printers and a variety of remote terminals, together with easy to use software for programming, diagnostics and control.



Mx-5100

Single Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-5100 comes fitted complete with a single loop driver card, 2 on-board sounder circuits, 20 programmable Zonal/System Led's with slide in labels and Four dedicated programmable push-buttons.

The control panel consists of the latest in flash-based microprocessor technology combined with a high resolution, high contrast LCD display and tactile keypad. This combination provides a concise menu based, high resolution, advanced Graphical User Interface with simple 'select & click' programming to aid engineer configuration and end user operation.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning and enhanced 'Trace Diagnostics' makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC-NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-5000 series Fire panels.

User-friendly Windows based PC-NeT configuration software includes service tools, logo programming software and virtual panel software allowing for remote diagnostics via a low cost modem or IP connection, saving time and expense for any travelling or maintenance.

Availability

Due Fourth Quarter



Features

- 20 Zonal/System LED's fully programmable with slide in labels.
- Full support of Apollo (Discovery, Xplorer S90 & XP95) and Hochiki ESP, Argus Vega & Nittan Evolution protocols.
- Advanced graphical LCD user interface with up to 200 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- Optional onboard Printer.
- Dual, flash based, microprocessor technology with on-board Real Time Clock.
- Dedicated USB & RS232 serial port for direct PC, modem or IP connection.
- Installer friendly 'Auto-learn' and 'Loop Detection' facility for uncomplicated, trouble-free, commissioning and fault finding.
- Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination.
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 2000 shared zones) with full cross panel reporting, control and cause and effect functionality.

Key Features

Single Loop Control Panel

EN54 Parts 2, 4 & 13'Approved'

Apollo/Hochiki/Argus & Nittan Protocol

3 Year Warranty as standard

Global Compliance

Multiple Languages

Fully Networkable

20 Zonal/System LED's with Slide in labels

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Blue Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 18 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate as well as 5 Programmable Push Buttons
Protocols	Hochiki ESP, Apollo S90, XP95, Xplorer and Discovery, Argus Vega & Nittan Evolution
Number of Fire Zones	2000 'Dynamix' (200 per individual panel)
Number of Loops	1
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	2 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Open Collector / Logic Outputs	8 x Programmable (via optional 8-way relay card)
Programmable Key Switch Inputs	8 Volt Free Digital Inputs
Total Available Output Current	3 Amps Maximum Available for loop current + sounder outputs + auxiliary supply
Mains Supply	230 V 50 Hz AC (+10%, -15% tolerance) 0.4 Amp
Battery Capacity	24V 4 Ah internal (min). Standard -24V 7 Ah Internal(max), Medium Enclosure -24V 12Ah internal (max)
Charger Current	1.0 Amp Temperature compensated
Serial ports	1 RS232 Onboard for PC, Modem, IP or External Printer
USB Interface	USB B type for PC connection
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	10,000 Event + Diagnostic + 500 Fire
Networking	Optional plug in Network card
Printer (Optional)	Optional on-board or remote
Enclosure / Colour	Steel IP30 / RAL9002
Cable Entry (20mm knockouts)	Standard-13x top and 8x top rear, Medium Enclosure - 17x top, and 11x top rear
Size H x W x D mm	Mx-5100 : 340 x 340 x 88, Mx-5100/M: 340x 415 x 115
Metalwork Options	Flushing Bezel, Battery Box and a range of special finishes including Stainless Steel, Brass and Chrome
Approvals	EN54-2:1998, EN 54-4:1998 & EN 54-13:2005

Order Codes

Mx-5100: Single Loop Analogue Addressable

Mx-5100N: Single Loop Analogue Addressable (Nittan Protocol)

Mx-5100/M: Single Loop Analogue Addressable
c/w medium sized enclosure

Mx-5200

Two Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-5200 series is a dedicated 2 loop complete with 2 on-board sounder circuits, 20 programmable Zonal/System Led's with slide in labels and Four dedicated programmable push-buttons.

The control panel consists of the latest in flash-based microprocessor technology combined with a high resolution, high contrast LCD display and tactile keypad. This combination provides a concise menu based, high resolution, advanced Graphical User Interface with simple 'select & click' programming to aid engineer configuration and end user operation.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning and enhanced 'Trace Diagnostics' makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or PC-NeT Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the Mx-5000 series Fire panels.

User-friendly Windows based PC-NeT configuration software includes service tools, logo programming software and virtual panel software allowing for remote diagnostics via a low cost modem or IP connection, saving time and expense for any travelling or maintenance.

Availability

Due Fourth Quarter



Features

- Dedicated 2 loops via common plug in loop driver boards.
- 20 Zonal/System LED's fully programmable with slide in labels.
- Full support of Apollo (Discovery, Xplorer S90 & XP95). Hochiki ESP, Argus Vega & Nittan Evolution protocols.
- Advanced graphical LCD user interface with up to 2000 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- 5 Amp power supply and charger to EN54 part 4.
- Dedicated USB & RS232 serial port for direct PC, IP or modem connection.
- Dual, flash based, microprocessor technology with on-board Real Time Clock. Optional on-board or remote printer.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 2000 shared zones) with full cross panel reporting, control and cause and effect functionality.

Key Features

Fully Expandable from 1 to 2 Loops	Global Compliance
EN54 Parts 2,4 & 13 'Approved'	Multiple Languages
Apollo/Hochiki/Argus & Nittan Protocol	Fully Networkable
3 Year Warranty as standard	20 Zonal/System LED's with Slide in labels

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Blue Backlit 240 x 64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 18 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate as well as 5 Programmable Push Buttons
Protocols	Hochiki ESP, Apollo S90, XP95, Xplorer and Discovery, Argus Vega & Nittan Evolution
Number of Fire Zones	2000 'Dynamix' (200 per individual panel over 2 loops)
Number of Loops	Dedicated 2 Loop Control Panel
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	2 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Programmable Key Switch Inputs	8 x Programmable Inputs with Slide in Labels
On Board Switch Input	1 x Clean Contact Switch Input
On Board Power Supply	5 Amp High Efficiency Switched Mode
Mains Supply	230 V Ac (+10%, -15% tolerance) 50 /60 Hz 1.9 Amp
Battery Capacity	24V 4 Ah internal (min), Standard-24V 12 Ah Internal (max), large Enclosure-24V 18Ah Internal (max), Deep Enclosure-24V 45Ah Internal (max)
Charger Current	2.0 A Temperature Compensated
Serial ports	1 RS232 Onboard for PC, Modem, IP or External Printer
USB Interface	USB B type for PC & IP connection
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	10,000 Event & Diagnostic + 500 Fire
Networking	Optional plug in Network card
Printer (Option)	Optional on-board or remote
Enclosure / Colour	Steel IP30 / RAL9002
Cable Entry (20mm Knockouts)	Standard-17x top / 11x top rear, Large Enclosure-19 x top / 11 x top rear, Deep Enclosure-30 x top / 11 x top rear
Size H x W x D mm	340 x 430 x 115, Large-470 x 450 x 115, Deep-470 x 450 x 190
Metalwork Options	Flushing Bezel, Battery Box and a range of special finishes including Stainless Steel, Brass and Chrome
Approvals	EN54-2:1998, EN 54-4:1998 & EN 54-13: 2005

Order Codes

Mx-5202*: Mx-5200 c/w 2 Loop Cards Fitted & Tested

***N**-Add /N for Nittan Protocol

***L**-Add /L for Large enclosure (max 18Ah batteries)

***D**-Add /D for Deep enclosure (max 45Ah batteries)

Mx-5400

1-4 Loop Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Mx-5400 series is fully expandable from 1 to 4 loops complete with 4 on-board sounder circuits, 20 programmable Zonal/System LED's with slide in labels and Four dedicated programmable push-buttons.

The control panel consists of the latest in flash-based microprocessor technology combined with a high resolution, high contrast LCD display and tactile keypad. This combination provides a concise menu based, high resolution, advanced Graphical User Interface with simple 'select & click' programming to aid engineer configuration and end user operation.

Powerful Cause and Effect programming coupled with 'Dynamix' zoning and enhanced 'Trace Diagnostics' makes the panel suitable for a wide range of site applications, from small to large complex multi area systems. Fully on site programmable via on board alphanumeric keypad or *PC-Net* Configuration tools.

PC Software

An extensive suite of PC based, software programs have been developed to supplement the *Mx-5000* series Fire panels.

User-friendly Windows based *PC-NeT* configuration software includes service tools, logo programming software and virtual panel software allowing for remote diagnostics via a low cost modem or IP connection, saving time and expense for any travelling or maintenance.

Availability

Due Fourth Quarter



Features

- Fully expandable from 1 to 4 loops via common plug in loop driver boards.
- 20 Zonal/System LED's fully programmable with slide in labels.
- Full support of Apollo (Discovery, Xplorer S90 & Xp95), Hochiki ESP, Argus Vega & Nittan Evolution protocols.
- Advanced graphical LCD user interface with up to 2000 fire zones as standard, allowing full EN54 compliance without additional hardware or LED indication.
- 5 Amp power supply and charger to EN54 part 4.
- Dedicated USB & RS232 serial port for direct PC or modem connection.
- Dual, flash based, microprocessor technology with on-board Real Time Clock. Optional on-board or remote printer.
- Flash memory and the advanced graphical display enables the panels to be configured to operate in virtually any language with any character set and allows the installer's logo and company details to be applied to the LCD display.
- Robust, removable equipment chassis with plug-in connectors for simple fixing and cable termination
- When connected to the fault tolerant Ad-NeT network, the panel operates as a true peer-to-peer interface (with up to 2000 shared zones) with full cross panel reporting, control and cause and effect functionality.

Key Features

Fully Expandable from 1 to 4 Loops	Global Compliance
En54 Parts 2,4 & 13 'Approved'	Multiple Languages
Apollo/Hochiki/Argus & Nittan Protocol	Fully Networkable
3 Year Warranty as standard	20 Zonal/System LED's with Slide in labels

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Blue Backlit 240 x 64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 18 Amber (Fault & System)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, Mute, Silence/Resound & Evacuate
Protocols	Hochiki ESP, Apollo S90, XP95, Xplorer and Discovery, Argus Vega & Nittan Evolution
Number of Fire Zones	2000 'Dynamix' (200 per individual panel over 2 loops)
Number of Loops	1-4. Expandable via individual plug-in loop driver
Devices per loop	As per Detector Manufacturer's Specifications
Loop Current	500mA
On Board Sounder circuits	4 x 1 Amp Programmable
On Board Relays	2 x 1 Amp 30v AC/DC Programmable
Auxiliary Supply	1 x 24v 500mA
Programmable Key Switch Inputs	8 x Programmable Inputs with Slide in Labels
Programmable Switch Inputs	1 x Clean Contact Switch Input
On Board Power Supply	5 Amp High Efficiency Switched Mode
Mains Supply	110 - 230 V Ac (+10%, -15% tolerance) 50 /60 Hz 1.9 Amp
Battery Capacity	24V 4Ah Internal (min), Standard-24V 12Ah Internal (max), Large Enclosure-24V 18Ah Internal (max), Deep Enclosure-24V 45Ah Internal (max)
Charger Current	2.0 Amp Temperature Compensated
Serial ports	1 RS232 Onboard for PC, Modem or External Printer
USB Interface	USB B type for PC connection
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	10,000 Event + Diagnostic + 500 Fire
Networking	Optional plug in Network card
Printer (Option)	Optional on-board or remote
Enclosure / Colour	Steel IP30 / RAL9002
Cable Entry (20mm Knockouts)	Standard-17 x top / 11 x top rear, Large Enclosure-19 x top / 11 x top rear, Deep Enclosure-30 x top / 11 x top rear
Size H x W x D mm	470 x 450 x 115, Deep - 470 x 450 x 190
Metalwork Options	Flushing Bezel, Battery Box and a range of special finishes including Stainless Steel, Brass and Chrome
Approvals	EN54-2:1998, EN 54-4:1998 & EN54-13:2005

Order Codes

Mx-5401*: Mx-5400 c/w 1 Loop Card Fitted & Tested

***N**-Add /N for Nittan Protocol

Mx-5402*: Mx-5400 c/w 2 Loop Cards Fitted & Tested

***D**-Add /D for Deep enclosure (max 45Ah Batteries)

Mx-5403*: Mx-5400 c/w 3 Loop Cards Fitted & Tested

Mx-5404*: Mx-5400 c/w 4 Loop Cards Fitted & Tested

Mx-5010/20

Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

Based around two core products, the Mx-5010 Remote Display Terminal (RDT) and the fully functional Mx-5020/30/40 Remote Control Terminal (RCT).

The remote terminals utilise the same graphical LCD user interface that can be found on the Mx-5000 series fire panels and are based upon the same advanced, flash based, microprocessor technology.

All Mx5000 series panels and remote terminals can communicate over the same 2-core network cable.

Integral network interface incorporating a special screen termination to prevent mains frequency earth-loop currents flowing between network nodes.

The 'Ad-Net' network operates as a true peer-to-peer system with full cross panel reporting, control and cause and effect functionality of up to 2000 zones.

Features

Programmable Push Buttons
Ad-Net or Ad-Net+ Option
Programmable Switch Inputs
Slide In Labels
Small & Compact
View All Information from across the network
Disable/Enable Options
3 Year Warranty as standard



Features

- The display information is fully programmable by individual zone or sector and can display any combination of fires, faults, pre-alarms or plant alarms. E.g. can display all information in its own sector, but can only show fire signals from other sectors of a building.
- Both remote terminals incorporate buzzer mute, view, enable/disable and test facilities with dedicated system and navigation keys for simple user control.
- The RCT has additional sector based control keys for Evacuate, Silence, Resound and Reset, which allows other networked panels to selectively respond to controls as programmed. E.g. on a site with multiple buildings, a user may be allowed to silence and reset fires originating in their own building. Fires originating from other buildings are displayed but cannot be reset.
- Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.
- By using 'flash memory' and an advanced graphical display the remote terminals can be easily configured to operate in virtually any language, with any character set and allows for the installer's logo and company details to be displayed on the LCD display during normal operation.
- Fully Programmable push buttons for remote isolation, class-change or general alarms.

Key Features

Networked for System Display or Control

User Friendly Graphical LCD Display

Ad-NeT/Ad-NeT+ Compatible

Optional Mains Version

Small & Robust

24v DC Operating voltage as standard

3 Year Warranty as standard

Specification

Display	Blue Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 12 Amber (Fault & System)
Keypad	Alpha Numeric Keypad, Navigation Keys & on-board buzzer mute facility
Controls (Mx-4020 RCT only)	System Keys for Reset, Silence, Resound & Evacuate
Key-Switch Input	Optional Level 2 Access Enable key switch
Power Supply Input	24 VDC, 150mA (/FT: 188mA) Operating range 15-30V
External Supply Monitoring	Monitored External Fault Input
Number of Fire Zones	2000 'Dynamix'
USB/Serial Ports	1 x USB & 1x RS232 Onboard for PC, Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Enclosure	Steel IP30
Cable Entry	20mm Knock-outs. 4 x top and 4 x rear
Colour	RAL 9002
Size H x W x D mm	Enclosure: 218 x 300 x 44 Back Box Only (When Recessing) 218 x 300 x 30
Metalwork Options	Semi Flushing Bezel, Special Finishes including Brass & Chrome
Mx-5010	
Size H x W x D mm	190 x 235 x 45
Power Supply Input	24 VDC, 150mA (/FT: 188mA) Operating range 15-30V
Mx-5020	
Size H x W x D mm	218 x 300 x 44
Power Supply Input	24 VDC, 150mA (/FT: 188mA) Operating range 15-30V
Mx-5030	
Size H x W x D mm	255 x 390 x 44
Power Supply Input	24 VDC, 150mA (/FT: 188mA) Operating range 15-30V
Mx-5040	
Size H x W x D mm	340 x 430 x 115
Power Supply Input	230V AC,(+10 & -15% Tolerance) 47-83Hz

Order Codes

Mx-5010*: (RDT) Remote Display Terminal

MX-5020*: (RCT) Remote Control Terminal

Mx-5030*: (RCT) Remote Control Terminal c/w Programmable Push buttons and LEDs

Mx-5040*: (RCT) Remote Control Terminal (as Mx5030) AC Mains Supply Required

*FT: Add FT for Fault Tolerant Version

Ax-Range

UL Analogue Addressable Fire Alarm Control Panels

“The UL 864 approved Ax-Range will appeal to fire system consultants, designers and installers.”

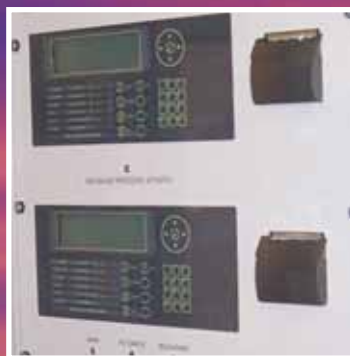


The Ax-Range of fire control panels are UL 864 approved and have a number of unique and innovative features that will appeal to fire system consultants, designers and installers.

The analogue addressable fire control panels, which are available in both 2 and 4 loop configurations and can be networked together, using Ad-NeT+ fault-tolerant network system. This allows the Ax-Range to provide simple cost effective solutions from the very smallest through to very large multi-panel network systems requiring thousands of devices.

The panels include extensive network cause-and-effect event programming capabilities which are fully programmable from the built-in keypad or via a PC-NeT, a suite of Windows™ based software tools.

Ax-Range panels also incorporate the Advanced Dynamix-Zoning function. Larger systems typically require large number of zones in order to comply with fire regulations and to give clear unambiguous indication to the user. Historically, the number of zonal based I/O and reporting requirements for these installations often exceeded the capability and/or capacity of the individual control panels used to make up the multi-panel networked system. Dynamix-Zoning effectively overcomes these restrictions, allowing buildings with many hundreds of zones to be readily supported with standard panels and equipment.



Ax-CTL-2

Two Signalling Line Circuit Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Ax range of fire detection and control equipment is based around two multi-circuit analogue addressable control panels.

The Ax-CTL-2 has 2 SLC loops with 126 devices per circuit, 2 on board 2Amp Notification Appliance Circuits and a 5Amp supply as standard.

The panels have two AUX Power outputs (1 resettable), Form C Trouble Relay, 2 programmable Form C Relays and a dedicated USB serial port for direct PC connection.

The panels are compact, flexible and feature rich, providing ease of installation and operation and are based on well proven dual, flash based, microprocessor technology with on-board Real Time Clocks.

The operating software features Installer friendly 'Auto-learn' and 'Loop Detection' facility for uncomplicated, commissioning and trouble finding and the panels are fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.



3137233
ANSI-UL-864 '9th Edition'



Features

- Dedicated system and navigation keys for simple user control
- User friendly Windows based Pc-Net configuration software includes virtual panel for remote diagnostics functionality via a low cost modem connection.
- Powerful cause and effect event programming coupled with the flexible Dynamix zoning makes the panel suitable for wide range of site applications including the most complex multi area systems.
- Programmable variable sensitivity (Day/Night) modes with multiple 7-day timers.

Key Features

Advanced user interface with graphical LCD
Ad-Net/Ad-Net+ (Style 7) network interface
True peer-to-peer networking
UL864 9th Edition

Automatic Drift Compensation
Alarm Verification and PAS
Optional point DACT and City Tie Modules

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 15 Amber (Trouble, Supervisory etc)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, ACK, Silence, Resound & Drill plus spare keys for future use
Number of Fire Zones	1000 'Dynamix' when networked (200 per individual panel)
Number of SLC Loops	2, Class A (Style 6 or 7) or Class B (Style 4)
Devices per SLC Loop	126
SLC Loop Current	500mA
On Board NAC circuits	2 x 2 Amp, Programmable, Class A (Style Z) or Class B (Style Y)
On Board Relays	3 x 1 Amp 30V AC/DC, 1 x Trouble and 2x Programmable
Auxiliary Supply	2 x 24V 500mA (1 x fixed, 1 x switched for smoke detector power)
Open Collector / Logic Outputs	8 x Programmable (via optional 8-way relay card)
Programmable Switch Inputs	8 Volt Free Digital Inputs (via optional 8-way input card)
On Board Power Supply	5 Amp High Efficiency Switched Mode on Base Card, Optional 5A Additional PSU
Mains Supply	120-240 V (+10%, -15% tolerance) 50/60Hz AC 2 Amp maximum
Battery Capacity	24V 4Ah internal minimum. 24V 17Ah internal maximum. 24V 26Ah maximum with deep enclosure. 24V 38Ah maximum with external battery enclosure.
Charger Current	2 Amp monitored, temperature compensated integral charger
Serial Ports	1 x USB Onboard for PC, Optional modules for RS232 for Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Optional plug in Network card
Printer (Optional)	Optional External Serial Printer
Enclosure / Colour	Steel Red RAL3002 (textured) Enclosure can be surface or semi-flush mounted
Cable Entry	¾" and 1" Knock-outs. 7 x top, 6 side and 2 bottom
Size H x W x D (inches)	Enclosure STD: 14½" x 22½" x 4" Door 15⅔" w x 23¾" h Enclosure DEEP: 14½" x 22" x 5½"
Weight	Enclosure: STD 23lb, DEEP 26.5lb
Approvals	UL864 '9th Edition'

Order Codes

Ax-CTL-2: Fire Alarm Control Panel c/w 5A PSU and 2 Signalling Line Circuits

Ax-CTL-2/D: Fire Alarm Control Panel c/w 5A PSU in deep enclosure and 2 Signalling Line Circuits

Ax-CTL-4

Four Signalling Line Circuit Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Ax range of fire detection and control equipment is based around two multi-circuit analogue addressable control panels.

The Ax-CTL-4 has 4 SLC/Loops with 126 devices per circuit, 4 on board 2Amp Notification Appliance Circuits and a 10Amp supply as standard.

The panels have two AUX Power outputs (1 resettable), Form C Trouble Relay, 2 programmable Form C Relays and a dedicated USB serial port for direct PC connection.

The panels are compact, flexible and feature rich, providing ease of installation and operation and are based on well proven dual, flash based, microprocessor technology with on-board Real Time Clocks.

The operating software features Installer friendly 'Auto-learn' and 'Loop Detection' facility for uncomplicated, commissioning and trouble finding and the panels are fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.



3137233
ANSI-UL-864 '9th Edition'



Features

- Dedicated system and navigation keys for simple user control
- User friendly Windows based Pc-Net configuration software includes virtual panel for remote diagnostics functionality via a low cost modem connection.
- Powerful cause and effect event programming coupled with the flexible Dynamix zoning makes the panel suitable for wide range of site applications including the most complex multi area systems.
- Programmable variable sensitivity (Day/Night) modes with multiple 7-day timers.

Key Features

Advanced user interface with graphical LCD
Ad-Net-Plus (Style 7) network interface
UL864 '9th Edition'
4 Signalling Line Circuits as standard

Automatic Drift Compensation
Alarm Verification and PAS
Optional point DACT and City Tie Modules
4 Notification Appliance Circuits as standard

Specification

Base Technology	Dual Flash based Processors with Real Time Clock, 'Trace' diagnostics, 'Pulse' communications & programmable languages
Display	Backlit 240x64 Graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 15 Amber (Trouble, Supervisory etc)
Controls	Alpha Numeric Keypad, Navigation Keys & System Keys for Reset, ACK, Silence, Resound & Drill plus spare keys for future use
Number of Fire Zones	1000 'Dynamix' when networked (200 per individual panel)
Number of SLC Loops	4, Class A (Style 6 or 7) or Class B (Style 4)
Devices per SLC Loop	126
SLC Loop Current	500mA
On Board NAC circuits	4 x 2 Amp, Programmable, Class A (Style Z) or Class B (Style Y)
On Board Relays	3 x 1 Amp 30V AC/DC, 1 x Trouble and 2x Programmable
Auxiliary Supply	2 x 24V 500mA (1 x fixed, 1 x switched for smoke detector power)
Open Collector / Logic Outputs	8 x Programmable (via optional 8-way relay card)
Programmable Switch Inputs	8 Volt Free Digital Inputs (via optional 8-way input card)
On Board Power Supply	5 Amp High Efficiency Switched Mode on Base Card, Optional 5A Additional PSU Module
Mains Supply	120-240 V (+10%, -15% tolerance) 50/60Hz AC 2 Amp maximum
Battery Capacity	24V 4Ah internal minimum. 24V 17Ah internal maximum. 24V 26Ah maximum with deep enclosure. 24V 38Ah maximum with external battery enclosure.
Charger Current	2 Amp monitored, temperature compensated integral charger
Serial Ports	1 x USB Onboard for PC, Optional module for RS232 for Modem or External Printer
Programming	Via on-board Keypad or PC running Windows Tools
Event Log	1000 Fire & Event + Diagnostic
Networking	Optional plug in Network card
Printer (Optional)	Optional External Serial Printer
Enclosure / Colour	Steel Red RAL3002 (textured) Enclosure can be surface or semi-flush mounted
Cable Entry	¾" and 1" Knock-outs. 7 x top, 6 side and 2 bottom
Size H x W x D (inches)	Enclosure STD: 14½" x 22½" x 4" Door 15⅔" w x 23¾" h Enclosure DEEP: 14½" x 22" x 5½"
Weight	Enclosure: STD 23lb, DEEP 26.5lb
Approvals	UL864 '9th Edition'

Order Codes

Ax-CTL-4: Fire Alarm Control Panel c/w 5A PSU and 4 Signalling Line Circuits

Ax-CTL-4/D: Fire Alarm Control Panel c/w 5A PSU in deep enclosure and 4 Signalling Line Circuits

Ax-ANN-C/D

Remote Annunciator Analogue Addressable Fire Alarm Control Panel

Advanced Fire Panel Technology

The Ax-series Remote Annunciators are based around two core products.

The Ax-ANN-D annunciator only and the Ax-ANN-C with annunciation and programmable full function control.

Both units are based around the latest 'flash' based technology and share a common graphical LCD user interface with the Ax-series fire alarm control panels.

The units communicate over the fault tolerant, style 7, 'Ad-Net-Plus' network which is a true peer to peer system with full cross node reporting, control and cause and effect functionality of up to 1000 zones.

The level of information displayed is fully programmable by individual zone or sector and individual units can be configured to display any combination of fires, troubles, supervisory, or other alarms.



Features

- Both units can mute their internal buzzer and have view, enable/disable and test facilities with dedicated system and navigation keys for simple user control
- The Ax-ANN-C has additional dedicated sector based control keys for Drill, Silence, Resound and Reset, which can be configured to allow other nodes on the network to selectively respond to controls as programmed.
- By using 'flash memory' and an advanced graphical display the remote terminals can be easily configured to operate in virtually any language, with any character set and allows for the installer's logo and company details to be displayed on the LCD display during normal operation.
- Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.

Key Features

Fully Configurable	'Ad-Net-Plus (Style 7) network interface
Selective reporting of system events	True peer-to-peer system operation
Programmable system control on Ax-ANN-C	Full cross panel reporting & control

Specification

Display	Backlit 240 x 64 graphical LCD
LED Indicators	3 Red (2 x Fire, 1 x Alarm), 1 Green (Power) & 9 Amber (Trouble, Supervisory & System)
Keypad	Alpha Numeric Keypad, Navigation Keys & on-board buzzer mute facility
Control (Ax-RCT only)	System Keys for Reset, Silence, Resound & Drill
Key-Switch Input	Optional Level 2 Access Enable key-switch
Power Supply Input	24V DC, 188mA Operating range 15-30V
External Supply monitoring	Monitored External Trouble Input
Number of Fire Zones	1000 'Dynamix'
Serial Port	1 USB Onboard for PC connection
Programming	Via on-board Keypad or PC running Windows Tools
Enclosure	Steel
Cable Entry	½" Knockouts 2 x top and 2 x bottom plus rear entry knockout for 4" electrical box
Colour	Red RAL3002 (textured)
Size H x W x D mm	Enclosure: 8½ x 11¾ x 1¾" Back box only (when recessing): 8½ x 11¾ x 1¾"
Weight	4½lb
Metal Options	Semi Flushing Bezel
Approvals	UL864

Order Codes

Ax-ANN-C: Remote Control Annunciator Panel

Ax-ANN/D: Remote Display Annunciator Panel

Options

Ax-: Access Enable Key-Switch

Ax-: Semi Flush Bezel

Ax-DRCM

100% Redundant Controller

Analogue Addressable Fire Peripheral

The Ax-DRCM redundant interface PCB provides a solution for full DUAL redundant installations with automatic changeover of all field-wiring circuits to a redundant fire alarm control and indication panel.

The redundant fire alarm panel operates in HOT standby mode and is ready to take over full and automatic control whenever a system trouble is detected within the main panel.

On detection of a trouble condition, the changeover is automatic and it takes only a few moments for the standby panel to establish connection to all field wiring circuits, devices and controls.

A manual override capability is provided to select Auto Mode, Main panel or Redundant panel to facilitate ease of installation / commissioning, or for operational purposes.

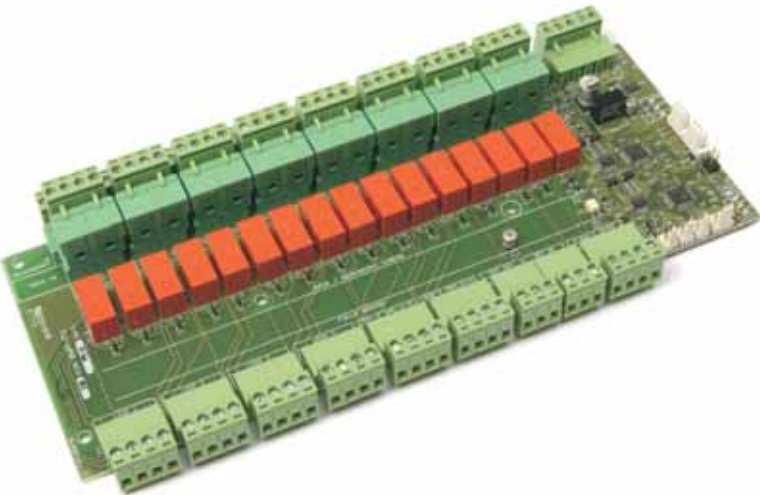
LED indications provide information on the operational status of the redundant control.

Key Features

- Full DUAL Redundancy Control and Indication
- Automatic Hot Standby
- All monitored field-wiring circuits redundant
- Simple to install

Applications / Limitations

The dual redundancy controller module can be connected between two AX-CTL FACP to automatically switch over all field wiring between the main and standby panels in the event of a failure in the main panel.



Programming Features

- Full DUAL Redundancy control and Indication
- Automatic Hot Standby
- All monitored field-wiring circuits can be switched
- Manual Control Operation
- Status LED Indications

Specification

Dimensions (PCB)	9.9" (251mm) x 3.9" (99mm) 8.6 ounce (245g)
Operating Temperature	32F (0°C) to 120F (49°C)
Relative Humidity	0-95% non-condensing
Operating voltage	18-28V DC (Powered from the AUX DC Output of the Standby Panel)
Operating Current	20mA Quiescent, 220mA Standby Active
Terminals	12-22 AWG
Relay Contacts	24V DC, 2.0A Resistive
Approvals	ETL Pending

Order Codes

Ax-DRCM: Dual Redundancy Controller Module

Compatibility

Compatible with all panels in the Ax FACP range

Analogue Addressable Fire Peripheral

The dual redundancy controller card is a peripheral device that is connected to the peripheral communications circuit (P-BUS) of two fire alarm control panels (main and standby FACP).

The fire alarm control panels can be located either in separate standard cabinets with the AX-DRCM housed in a field-wiring termination enclosure or the two control panels and the AX-DRCM can be supplied pre-wired and housed in a common 19" rack-mount cabinet.

The dual redundancy controller card has provision to automatically switch the entire field wiring connections between the main and standby fire alarm control panels to which it is connected.

Each FACP is configured with the same programming and is able to communicate with the common set of field devices. In normal AUTO mode, the main FACP is connected to the field devices and the standby (redundant) FACP is isolated from the field devices.

The standby FACP will indicate on its display that it is operating in standby mode and will not indicate trouble conditions related to the field wiring and devices connected. It will, however, continue to monitor its internal circuits and memory and will indicate trouble conditions if it detects a failure in any of these.

Redundancy Operation

If the main controller detects a system fault/trouble due to program or configuration data memory failure, power supply fault or SLC/Loop circuit driver internal fault, the fault condition will be indicated by the panel display and the dual redundancy controller card will automatically changeover the field wiring circuits to the standby FACP (unless this is also in a fault condition or the Main FACP is in the fire alarm condition).

The Ax-DRCM is powered from the standby fire alarm panel (AUX 24V DC). Should the redundant panel or its power supply fail, the Ax-DRCM will maintain all field wiring connections to the main fire alarm panel. The main fire alarm panel will indicate a fault/trouble condition due to loss of the Ax-DRCM.

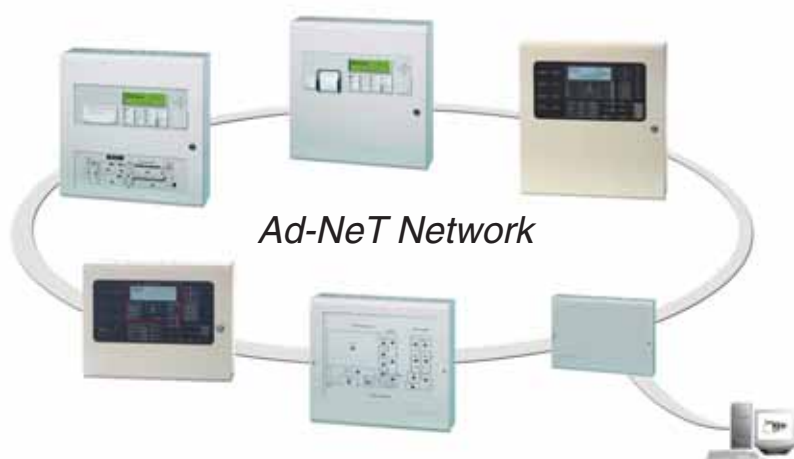
Status LED indications and a manual operation control key-switch are provided to control the operation of the Ax-DRCM, in which can be set to AUTO, MAIN or REDUNDANT. In MAIN or in REDUNDANT positions, the Ax-DRCM connects the field wiring permanently to the selected control panel irrespective of any fault/trouble conditions detected and indicated on that panel.



Networking

Ad-NeT Peer-to-Peer, Fault Tolerant Network for Fire Alarm Control Panels

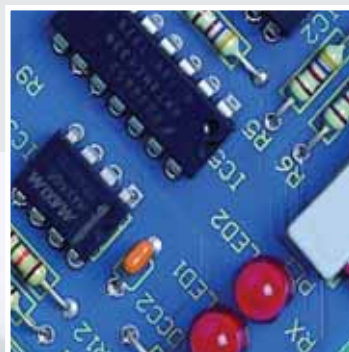
“The network can be configured to allow the inter-connection of up to 200 panels in a fault-tolerant configuration”



Advanced Electronics Ad-NeT fire network is compatible with Mx-4000, Mx-5000 and Ax-Series systems. It can be configured to allow the inter-connection of up to 200 panels (nodes) in a fault tolerant configuration. The maximum cable length between nodes is 1.5km, with a total loop length of 20km. The network is capable of withstanding a single fault between nodes without loss of communications to any single panel. This is all achieved using standard two-core fire resistant cable.

The network operates as a true peer-to-peer system allowing information from any input or output device to be passed over the network and displayed on any control panel or remote terminal as required. Details include fire, general alarm, pre-alarm, fault, control inputs and disablement as well as analogue values, test instructions and status information.

The DynamiX zoning facility allows the networked system to utilise up to 1000 zones providing non-confusing indication and allowing true peer-to-peer cross panel report, control and site-wide cause and effect functionality. No single panel is required to act as a 'Master' for the network to operate.



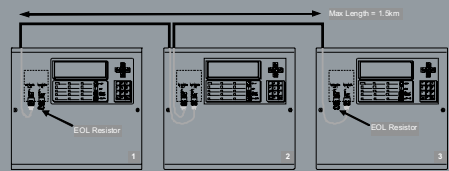
Networking

Ad-NeT & Ad-NeT+ Network Cards

Analogue Addressable Fire Peripheral

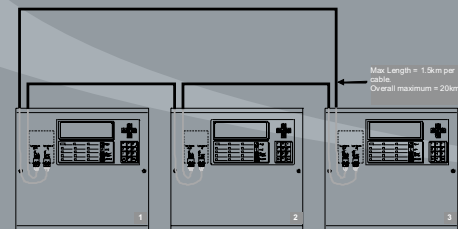
The Ad-NeT network system allows all Mx/Ax series control panels, remote terminals and network peripherals to be connected together using standard fire resistant two-core cable. It provides both the benefits of distributed intelligence and reduced installation costs whilst catering for the smallest two-panel network through to the largest 200 panel wide area networked system.

Ad-NeT Network (Radial Format)



The network operates as a true peer-to-peer system allowing information from any input or output device to be passed over the network and displayed on any Mx control panel or remote terminal as required. Details include Fire, General Alarm, Pre-alarm, Fault, Control Inputs and Disablement as well as analogue values, test instructions and status information.

Ad-NeT+ Network (Secure Format)



Networking

Simply adding and connecting a network card allows any Mx/Ax control panel or remote terminal to be networked. All other nodes on the Ad-NeT system will be instantly aware of a panel as soon as it is given a valid network node address, allowing additional panels to be added at any time with a minimum amount of reprogramming. All panels incorporate a network analyser providing valuable diagnostic and status information and also have the facility to prevent the transmission of fires or faults during commissioning.

For more complex systems, the Windows based PC-NeT Mx configuration software allows sector based programming for Mute, Silence, Resound and Reset control keys as well as investigation delays, group disablement and test instructions. All panels within the same sector will share common controls and each panel or remote terminal can also be programmed to show specific network information on a zonal basis. For cause and effect, any input device can be programmed to operate any output device on any panel and, to simplify the programming, all the configuration data is contained within one user-friendly network configuration file.

Mxp-003/9

Ad-NeT Networking

Key Features

True Peer to Peer
Large Ad-NeT+ 200 Panel Network
Up to 1.5Km between Control Panels
Windows based PC setup
Network Systems share up to 1000 zones
Network Analysis from Control Panel

Applications/Limitations

Standard Network:

The maximum total cable length is 1.5km.
The maximum number of network nodes is 32 (50 with signal buffer)

Fault Tolerant Network:

The maximum cable length is 1.5km between each node and the maximum total loop length is 20km. Each network card has in-built diagnostics and is fully monitored for both short and open circuit faults between nodes. The network is capable of withstanding a single fault between nodes without loss of communications to any single panel. The maximum number of network nodes is 200.

Compatibility

The Network cards are compatible with all Mx & Ax series control panels.

The Remote Terminals (RCT & RDT), Mxp-010 BMS / Graphics interface and other network peripherals such as Advanced Mimic Units (AMU) all have integral network cards built-in. (Only use fault tolerant Peripherals and Remote Terminals on a fault tolerant network).

The Standard Network Card is supported on all panels from software version 015 onwards.

The Fault Tolerant Network Card is supported on all panels from software version 018 onwards.

Order Codes

Mxp-003: Standard Network Card

Mxp-009: Fault Tolerant Network Card

Mxp-003F: Standard Network Card fitted to an Mx-4000 control panel.

Mxp-009F: Fault Tolerant Network Card fitted to an Mx-4000 control panel

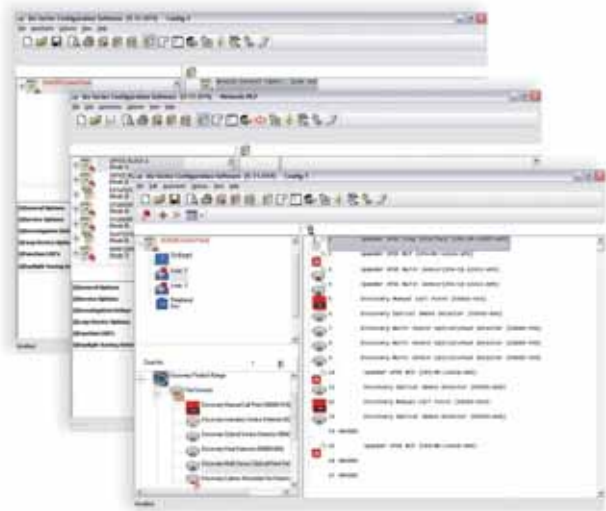
Specification

Network Connections	IN: A OUT: A B B SCN (Screen) SCN (Screen)
On-board Indication	2 Red LED's. LED 1 illuminates when data is transmitted LED 2 illuminates when data is received
Supply Current	Mxp-003 Standard Network card: 20mA Mxp-009 Fault tolerant Network Card: 61mA (All power taken directly from the panel motherboard)
Temperature range and Humidity	-5°C to 40°C 95% non-condensing (maximum)
Dimensions (H x W x D)	85mm x 65mm x 20mm (Mounting pillars are provided on the panel chassis to mount this card)
Recommended Cable	2 Core twisted-pair plus screen.

Software

Diagnostic and Control Software for Fire Alarm Control Panels

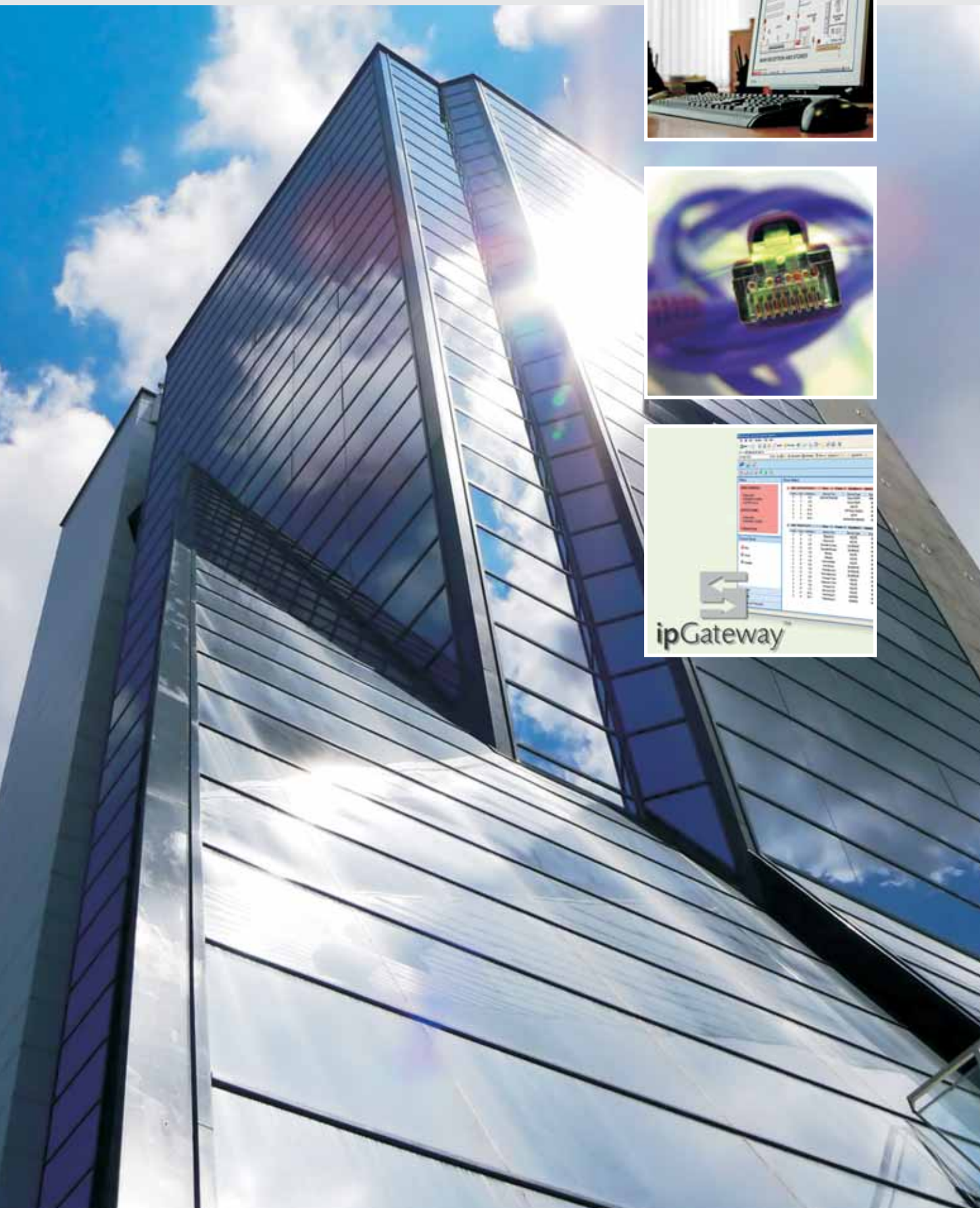
“PC-NeT is a suite of Windows XP and Vista compatible programs that can be used on the Mx-4000, Mx-5000 and Ax-Series panels.”



Advanced's software solutions provide the user with a range of applications to control, configure and diagnose fire alarm control panels.

PC-NeT is a suite of Windows XP and Vista compatible programs that can be used on the Mx-4000, Mx-5000 and Ax-Series panels. These include a highly configurable graphical front end that allows the end-user to monitor the entire fire system through site maps, text and images. The user can isolate and obtain analogue values by simply selecting icons and devices. The PC-Net configuration and diagnostic tools allow engineers to easily configure panels and includes a “Virtual Terminal” utility, which provides remote connection via a low cost Modem/Ethernet connection for diagnostic purposes, saving unnecessary travelling time and expense on minor maintenance visits.

ipGateway™ is a fully interactive internet portal, which allows remote monitoring of any Advanced fire system, both stand alone and networked, from anywhere on the internet using a standard web browser.



Software

Pc-NeT-Programming Suite

PC-NET-003 Mx Configuration Software

PC-NeT-003 allows the configuration of the Mx-4000/Mx-5000 series fire panels, and is equipped with the latest programming options expected from a modern fire control panel.

In addition to the standard configuration options the package allows sophisticated cause and effect, variable sensitivities and time critical settings to be defined. The software also has a Virtual Panel display, supports remote diagnostics and allows flexible connection either directly or via modem for all of the functions.

Features

- Allows full configuration of the Mx-4000/5000 panels and network
- User friendly 'Windows' based software
- Virtual panel display
- Supports remote diagnostics
- Assistants menu to check your design and configuration
- Panel Branding via electronic logo



PC-NeT-004 MX Terminal Dial Software

PC-Net-004 is a stand-alone PC based virtual panel control and display package for either direct or remote connection to a Mx-4000/5000 series fire panel.

PC-NeT-007 Mx Logo Programmer,

PC-Net-007 allows the "installers" logo to be uploaded to the panels graphical display for simple branding of the panel.

Key Features

User friendly	Product branding via Logo Tool
Windows based PC Programming	Virtual Control/Diagnostic Mode
Cost effective	XP & Vista Compatible
Remote Diagnostics	

PC-Net-005 Mx Graphical Control Software,

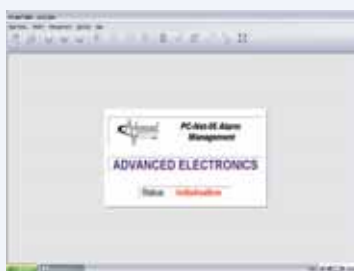
PC-Net-005 is a fully functional, stand alone, PC based Fire System Management package with Graphics and alarm logging functions as standard. The system connects to any Mx-4000 series fire panel or Ad-NeT based system, either standard or fault tolerant, via a Ad-NeT personality module.

The Advanced Pc-Net Graphical Control System is highly configurable so that the end user can be presented with site maps, text and images in order to monitor the full fire system. Isolate and obtain analogue values by simply selecting icons and devices.

Pc-Net software allows unique auto and pre-configured software which enables the system to work in just 60 minutes without any additional configuration.

Powerful Graphical control and indication with historic log and analysis features providing instant report by date/time as well as event type, sensor address and operation.

Title Screens



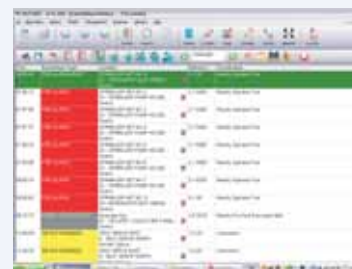
Event listing



Combined Event Listing/Text Pages



History Search



Site Graphic Control



Zoomed Graphic / Symbol



Order Codes

Pc-Net-003: Mx-4000/5000 series configuration software & lead

Pc-Net-003-USB: Mx-4000/5000 series configuration software & USB upload/download lead

Pc-Net-004: Mx-4000/5000 series remote dial up software

Pc-Net-005-1: Mx Graphical Control software (single panel compact version)

Pc-Net-005-10: Mx Graphical control software (up to 10 node connection)

Pc-Net-005-100: Mx Graphical Control software (up to 99 node connection)

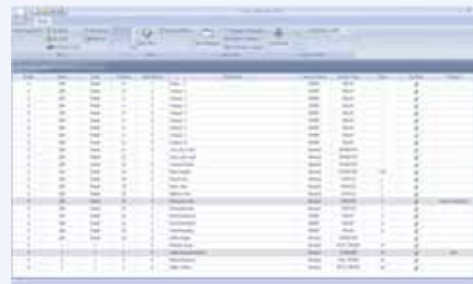
Pc-Net-007: Mx-4000/5000 series logo programming software

Pc-Net-011: Mx-ESPA 4.4.4 Pager programming software

Pc-Net-013: Ex-Extraction Software (See Page 17)

Pc-Net-015: Mx-Service Tool

Mx-Service Tool



BMS/Graphics Interface (**Mxp-010-BX**) will be required for interfacing the Mx-4000 series to PC

Peripherals

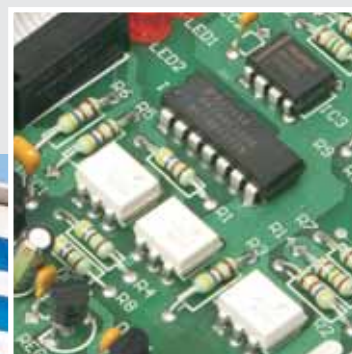
**An extensive range of
Peripheral Hardware for
Fire Alarm Control Panels**

*“Dedicated
peripherals that
provide system
expansion and
interface to external
systems”*



An extensive range of dedicated peripherals designed for Advanced's complete range of fire alarm control panels, providing system expansion and interface to external systems.

Peripherals include programmable I/O, zonal LED panels, programmable and booster sounder circuit cards, modem interface, shop interface units, network I/O and pager interface.



Mxp-008

8-Way Relay Output Card

Analogue Addressable Fire Peripheral

The Mxp-008, 8 Way Relay Output Card is an internal peripheral for use with The Mx-4000 Multi- Loop range of control Panels.

This additional pcb provides a cost effective solution to providing 8 individually programmable 1 Amp rated, volt free, clean contact outputs.

The Mxp-008 connects directly to the panels motherboard in which each out put can be individually assigned to an output group to provide full support for th Mx-4000 systems Dynamix zoning facilities.

Key Features

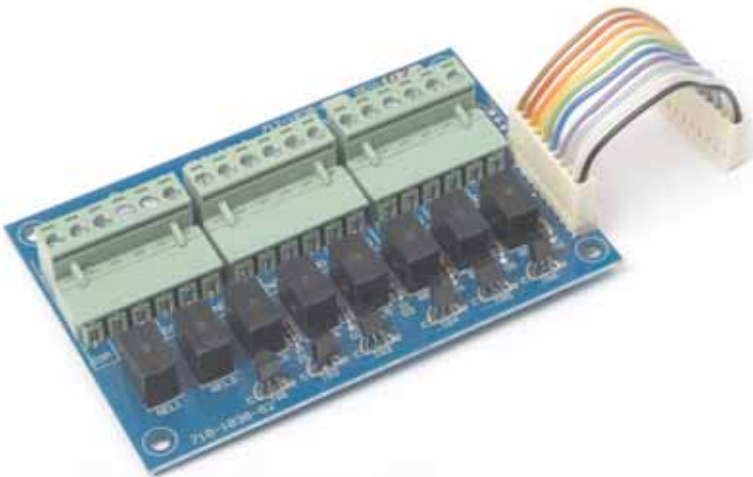
- 8 Individual Programmable Outputs
- Fast Instant Response
- 3 Year Warranty as standard
- Each Output 30V AC/DC, 1 Amp Rating
- Cost effective against ancillary hardware

Applications

Ideal for any application where a number of programmable outputs are required at the panel, e.g. landlord / tenant interfaces.

Limitations

- Each output can be assigned to an individual output group and is fully programmable for any output function allowed within the Mx-4000 configuration program.
- Only one 8 Way Relay O/P Card can be fitted to a Mx-4200/4400 panel.
- Up to two 8 Way Relay O/P Cards can be fitted to a Mx-4800 panel.



Programming Features

- Each output individually programmable
- Optional fail-safe setup
- Allow investigation delays
- Can silence option
- Instant response time

These features not only aid commissioning and cut down on expensive ancillary hardware but also allow the system to be easily configured to provide additional outputs for the more complex cause and effect configurations using standard products.

Specification

Relay Outputs	8 volt free contacts - 2 x changeover + 6 x normally open which can be inverted
Contact Rating	1 Amp 30 V DC/AC Maximum
Power Supply	24 V dc (derived from panels motherboard)
Supply Current	65 mA maximum (all relays energised)
Protocols	As per detector manufacturer's specifications
Dimensions	70 mm (H) x 105 mm (W) x 18 mm (D)

Order Codes

- Mxp-008:** 8 Way Relay Output Card
- Mxp-008F:** 8 Way Relay Output Card fitted within an Mx-4200, Mx-4400 or Mx-4800 control panel

Compatibility

The Mxp-008 is fully compatible with the following Fire Alarm Control Panels: Mx-4200, Mx-4400 and Mx-4800

Mounting pillars are provided on the panel chassis to mount this card.

Mxp-014

8-Way input Card

Analogue Addressable Fire Peripheral

The Mxp-014, 8 Way Input Card is an internal peripheral for use with the Mx-4000 Multi-Loop range of control panels.

This additional pcb provides a cost effective solution to providing 8 individually programmable clean contact switch inputs.

The unit connects directly to the control panel and is ideal for class change latching/non-latching operation where a fast input response is essential.

Key Features

- 8 Individual Clean Contact Inputs
- Fast Response time
- Individually Programmable
- Cost effective against ancillary hardware
- 3 Year Warranty as standard

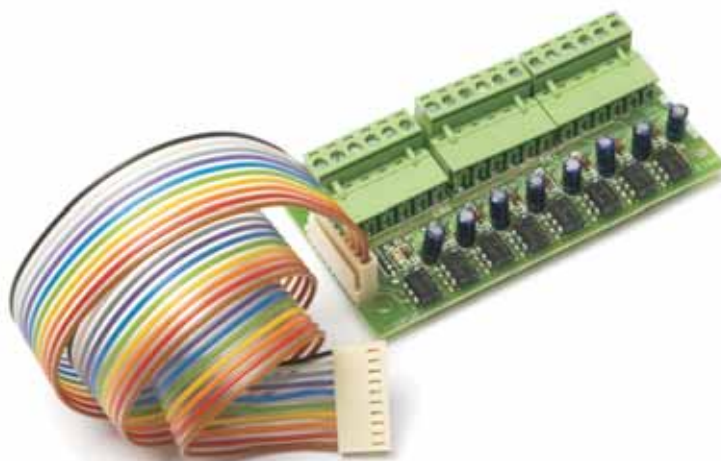
Applications/Limitations

All Inputs can be individually programmed for any specific function allowed in the control panel programme: i.e. Fire, fault, Pre-Alarm, Security, Record, Alarm-1, Alarm-2, Alarm-3, Key Lock, Silence, Resound, Mute, Disable Group, Control Signal and Fire Evacuate.

Only one 8 Way Input card can be fitted to an Mx-4200/ Mx4400 control panel.

Up to two 8 Way Input Cards can be fitted to an Mx-4800 control panel.

The input functions can be either latched or non latched and include Fire, Fault, Pre-Alarm, Security, General Alarm (Class Change), Group Disable, Control, Level 2 Access Enable etc together with any other programmable input option allowed within the Mx-4000 Systems Dynamix zoning facilities



Programming Features

- Each Input Individually Programmable
- Non Latching Options
- Allow Investigation Delays
- Normally Open Inputs can be inverted
- Easily programmable by on board keypad or via PC
- Instant Response Time

Specification

Switch Inputs	8 normally open inputs. (Can be inverted via software for normally closed operation on an individual basis).
On board indication	8 on board Green LED's
Power Supply	24 V dc (E.g. Wired from panel 24V Aux supply)
Supply Current	Open - 0mA Closed - 2.2mA per switch
Dimensions (H x W x D)	55mm x 105mm x 18mm

Order Codes

Mxp-014: 8 Way Input Card

Mxp-014F: 8 Way Input card fitted within an Mx-4200 / Mx-4400 or Mx-4800 control panel

Compatibility

The Mxp-014 is fully compatible with all our Fire Alarm Control Panels
Mounting pillars are provided on the panel chassis to mount this card.

Zonal Indication

20, 50, 100 & 200 Zonal LED Cards

Analogue Addressable Fire Peripheral

The Zonal LED indicator cards are a range of panel mounted peripheral modules that can be added to the Mx-4000 series of control panels. The display cards are available in numerous configurations and provide individual indication of the zone(s) in fire.

The units fully support the Mx-4000 systems Dynamix zoning facilities on networked or larger stand alone systems and can be used to provide individual Zonal LED indication at one location.

The Mxp-024F and Mxp-025F are 20 zone units, which are fitted to the front display plate on the Mx-4000 series control panel. The Mxp-013-050F, Mxp-013-100F and Mxp-013-200F incorporate 50, 100 or 200 LED indicators respectively and are compatible with all Mx-4000 series multi-loop panels.

Key Features

Up to 200 Zones available
3 Year Warranty as standard
Factory Fitted or Retro Fit
Supports Dynamix Zoning
Cost effective against ancillary hardware

Applications

The zone indicator card can be fitted to a Mx-4000 control panel to provide indication of the zone(s) in fire in addition to the panel graphical display. The LED will illuminate when the corresponding zone enters a fire condition.

The 100 Zone LED card incorporates DIL switches to set the zone range to be indicated from 1-1000 (E.g. 1-100 101-200.....901-1000). The 20 and 50 Zone cards display zones 1-20 and zones 1-50 respectively.



Features

- The cards are capable of simultaneously displaying all zones in a fire condition and incorporate a unique power saving feature to minimise the power drawn from the control panel in the event of a major fire.
- Several other options are also available within the Mx-4000 range for applications where indication of fire signals from zones in addition to the panels graphical display is required. These options include Advanced Mimic Units, graphical systems and printers.

Specification/Order Codes

Mxp-024F*: 20 Zone LED Card and label fitted to a Mx-4100 control panel.

Mxp-025F*: 20 Zone LED Card and label fitted to an Mx-4200/ Mx-4400 or Mx-4800 (Cannot be used if an Mxp-012 on board printer is fitted)

Mxp-013-050/100/200F*: 50, 100 or 200 Zone LED Card and label fitted to an Mx-4200/ Mx-4400 or Mx-4800

* Omit the F for retro fit.

Compatibility

The Mxp-024F can be fitted to the Mx-4100 control panel

The Mxp-025F, Mxp-013-050F, Mxp-013-100F and Mxp-013-200F can be fitted to an Mx-4200, Mx-4400 or Mx-4800 control panel.

Mxp-028

Modem Interface

Analogue Addressable Fire Peripheral

The Advanced Mxp-028 Modem Card is a peripheral interface for use with the Mx4000/5000 range of control panels.

The unit permits remote PC connection for interactive control panel interrogation via the software package PC-Net-004.

The unit can be supplied in PCB format for internal panel mounting, or in an enclosure for remote mounting.

This unit has the following diagnostics

Heartbeat LED Indicator

During initial power up, LED 3 will flash at a rate of 2Hz. After approximately 5 seconds it will revert to 1Hz indicating normal operation.

Modem Status LED's

DCDIND – Telephone connection established.

RXIND – Receipt of data by modem.

DTRIND – Always illuminated.

TXIND – Data transmission by modem.

RS232 Activity LED's

RX – Receipt of data from fire panel.

TX - Transmission of data to fire panel.

Key Features

Remote Dial-Up access to the Mx4000 Series.

Can be Internally mounted or remotely Fitted.

Uses Pc-Net-004 for PC to site connection

3 Year Warranty as standard.



Specification

Power Supply	15-30V DC (e.g. Wired from panel 24V auxiliary supply)
Supply Current	100mA (typical at 24V DC)
Temperature	-5°C to 50°C
Humidity	95% Humidity (non condensing)
Dimensions	Enclosure: 218mm x 300mm x 45mm (H x W x D)

Order Codes

Mxp-028-F: Internal panel modem mounted within an Mx4200, Mx4400 or Mx4800 control pane or within any Mx-5000 Series.

Mxp-028-BX: Boxed modem. (See specification details for enclosure dimensions)

Spares:

Mxp-028: Modem Card

Compatibility

Internal fitting of the Mxp-028 is applicable only to the Mx4200, Mx-4400, Mx-4800, Mx-5100, Mx-5200 Mx-5400 & Mx-5800 control panels. The Mxp-028-BX can be used with the Mx-4100, Mx-4200, Mx-4400, Mx-4800, Mx-5100, Mx-5200, Mx-5400 & Mx-5800 control panels.

Applications / Limitations

The modem will allow interactive interrogation of the connected fire product including transfer of the event log using Pc-Net-004 software.

Mxp-048

Portable Printer

Analogue Addressable Fire Peripheral

The Mxp-048 is a portable / desktop version of the Mxp-012 Internal thermal printer for use with the Mx-4000/5000 multi-loop panels. This state of the art unit has been designed to provide automatic, or on demand, hard copy listings of the event log and or status information. For automatic operation the printer allows the user to individually select the operation for Fire, Fault, Test and Alarm event types.

The unit is fast and silent during operation and has its own in-built battery backup to enable continuous un-interrupted operation even during a mains fail situation. The printer mechanism itself has an easy access, front-loading paper roll compartment.

Ideally suited for engineer use – connect the printer to the panel during commissioning / maintenance to printout details of Faults, Disablements, etc. along with input points including their analogue values for a permanent record.

Key Features

- Mx-4000/5000 Compatible
- Thermal Printer
- 3 Year Warranty as standard
- Fast and Silent Operation

Applications / Limitations

Can be used for printing the panel's event log or configured by the user to automatically print any of the following network event types: - Fire, Fault*, Alarm or Test.



Programming Features

- Automatic Operation for Fire, Fault, Alarms and Tests.
- On-Demand Option for Printing Inputs, Outputs, Disablements, Network Faults and Event Log.
- Easy paper loading - Clamshell Design
- Battery Standby Support

Specification

Printer Type	Thermal, Graphical
Dimensions	150D x 110 W x 70 H (max height)
Power Supply	230V AC via the supplied adaptor
Operating Temperature	5°C to 50°C, 10-85% RH (Non-condensing)
Storage Temperature	-20°c to 50°C, 10-90% RH (Non-condensing)
Printer Resolution	384 dots per line, 8 dots / mm
Sensors	Door Closed, Paper Out
Paper Roll	Thermal, 58mm Wide, 50mm Diameter
Power Save Mode	Automatic Switch Off if the printer is not used for 5 minutes to save battery life. This feature can be turned off.

Order Codes

Mxp-048: Desktop Thermal Printer c/w PSU, Battery and Leads

Spares:

Mxs-008: Thermal printer roll (pack of 10)

Mxs-035: Re-chargeable battery pack

Mxs-036: Rubber Boot and belt kit

Mxs-037: Spare PSU and Power Lead

Compatibility

The printer functions are supported from panel software revision 16 onwards.

Mxp-012

On-Board Printer

Analogue Addressable Fire Peripheral

The Mxp-012 on-board thermal printer is an internal peripheral for use with the Mx-4000 Multi-Loop and Mx-5000 complete range of control panels.

This additional unit provides automatic, or on demand copy listings of the event log or status information.

The unit being fast and silent during operation has its own in-built battery back-up to enable continuous un-interrupted operation even during a mains fail situation.

Spare rolls of thermal paper can easily be replaced due to the mechanisms easy access front loading compartment.

Key Features

Fast Instant Response

3 Year Warranty as standard

Fast and Silent Operation

Thermal Printer

Cost effective against ancillary hardware

On-demand Option for Printing

- Inputs
- Outputs
- Disablements
- Event Log
- Network Faults

Applications

Can be used for printing the panel's event log or configured by the user to automatically print any of the following event types: Fire, Fault, Alarm or Test.

Note: If an on-board Printer is to be fitted to the panel with a zone indicator module, use the Mxp-013-050 or Mxp-013-100 modules. The Mxp-025 20 Zone LED card



Printable options/Features

Automatic Operation for

- Fire
- Faults
- Alarms
- Tests

Specification

Printer Type	Thermal, Graphical
Printer resolution	384 dots per line
Panel loading in Quiescent State	20mA
Panel loading, continuous printing	25mA
Maximum working temperature	50°C

Order Codes

Mxp-012: On-board Printer c/w chassis door and label

Mxp-012F: On-board Printer Fitted to an Mx-4200 / Mx-4400 or Mx-4800

Compatibility

The on-board Printer can be fitted to the following Fire Alarm Control Panels:

Mx-4200, Mx-4400, Mx-4800 and all Mx-5000

The On-Board printer is supported from panel software revision 16 onwards.

Mxp-020

Advanced Mimic Unit

Analogue Addressable Fire Peripheral

The Advanced Mimic Unit (AMU) provides a flexible, cost effective solution for any Mx-4000/5000 based fire detection system which requires supplementary graphical indication of the installation via LED technology.

These units, unlike a panel mounted LED array, which to be meaningful must also have a printed lookup table or picture adjacent to the panel, provide an unambiguous graphical representation of the actual zones in fire.

The unit can be mounted either internally in an Mx-4000/5000 multi-loop control panel, or alternatively, in a bespoke remote enclosure. Each unit comprises a graphical representation of the installation together with a programmable mimic driver card and LED indicators. The mimic diagram is copied from a standard CAD drawing provided by the client and the finished unit is supplied pre-wired and ready to power-up.



Programming Features

- The panel mounted mimic is ideal for smaller systems which simply require a graphical indication of the local zones in fire, whilst the remote unit is a fully programmable stand-alone device that can accommodate a larger diagram with a large number of zones or specific devices arranged on a custom site plan.
- The remote mimic can be mounted adjacent to the control panel or remotely if connected to an Ad-NeT based network system
- LED's can be configured to be steady or pulsing when operated and each indicator can be assigned to any input type from any panel connected to the network, providing full support for the MX-4000/5000 systems Dynamix zoning facilities.

Mxp-020

Advanced Mimic Unit

Key Features

Supplementary Graphical Indication
Zonal or Fully Programmable LED Option
3 Year Warranty as standard
Fully Networkable
Full Colour Mimic Option

Applications

The panel mimic will show zones in fire and incorporates a DIL switch to set the zone range from 1-1000. (E.g. 1 - 100, 101 - 200.....901 - 1000)

Mxp-020-100-BX*: The remote mimic is a stand-alone unit complete with its own EN54-4 power supply/charger and each output on the driver card is fully programmable using a PC.

Compatibility:

The Mxp-027-100F can only be fitted to Mx-4200 or Mx-4400 control panels.

The Mxp-020 remote mimic is compatible with all Mx-4000 control panels from software revision 16 using the Ad-NeT peer-to-peer network. The Mxp-020 mimic driver is programmable using the Pc-NeT-003 Mx configuration tool from revision 3.1 onwards.

Specification

Power Supply	Panel Mimic 17-28V DC (e.g. Wired from panel 24V auxiliary supply)
	Remote Mimic 220 - 240V AC (+10-15%) 50 - 60 Hz 1.6A Support for up to 2 x 12V 7Ah batteries
Supply Rating	30mA quiescent + 1.2mA per LED energised (typical at 24V DC)
Temperature Range & Humidity	-5°C to 50°C 95% Humidity (non condensing)
Dimensions (mm)	Panel Mimic Mimic Drawing: 388mm W x 150mm H
	Remote Mimic Type 1: Mimic Drawing 270 W x 205 H Enclosure: 320 H x 345 W x 85 D
	Type 2: Mimic Drawing 358 W x 295 H Enclosure: 475 H x 450 W x 115 D

Order Codes

Mxp-0027-100F: Internal panel mimic with up to 100 (Mxs-026F) LED's mounted to an Mx-4200 / Mx-4400 control panel. (Artwork required i.e Autocad, Freehand).

Mxp-020-100-BX1: Remote programmable mimic enclosure (type 1) c/w PSU and up to 100 (Mxs-026F) LED's fitted (Artwork required)

Mxp-020-100-BX2: Remote programmable mimic enclosure (type 2) c/w PSU and up to 100 (Mxs-026F) LED's fitted (Artwork required)

Mxp-045-BX: Remote programmable full colour mimic enclosure and up to 50 (Mxs-026F) LED's can be fitted and up to 50 key switch inputs fitted. (Artwork and PSU required).

Mxp-020-100: 100-way programmable remote mimic driver card. (Unboxed)

Mxs-026F: high Intensity LED fitted to an Mxp-027 or Mxp-020 mimic. (LED bezel diameter = 9mm)

Spares:

Mxs-027: Local 100 Zone mimic driver card

Mxs-026: High Intensity LED c/w 600mm lead for Mxp-027 or Mxp-02

Mxp-021

Sounder Splitter Card

Analogue Addressable Fire Peripheral

The Mxp-021 Sounder Circuit Splitter is a peripheral unit for use with all Mx-4000 range of control Panels.

This additional unit takes a standard sounder circuit from either a control panel or other panel based sounder circuit controller and multiplies to provide up to 4 monitored outputs.

In operation, the additional outputs follow the output they are connected to. The circuits are fully monitored for open and short circuit and will take an independent supply to provide up to 1A per circuit.

Key Features

- 4 Monitored Outputs
- 3 Year Warranty as standard
- Up to 1 Amp per circuit
- Cost effective against ancillary hardware

Applications / Limitations

The 4-way sounder splitter card can be supplied as a PCB only for mounting in a customers/OEM enclosure or supplied fitted within an Mx-4200 , Mx-4400 or Mx-4800 enclosure when specified at the time of order. When supplied fitted in this format, the load at the outputs from the splitter will be limited to the sounder output loading of the input circuit from which it is driven.

For applications where additional output drive current is required, the Mxp-021-BXP should be specified. This will provide 4 monitored 1 Amp rated sounder circuits in addition to the 1 Amp sounder circuit output capability of the Mx-4000 control panel.

All 4 outputs on the sounder splitter card will operate in tandem, and follow the output of the sounder circuit to which the card is connected.



Features

The unit is available in 2 formats:

- Mxp-021 a peripheral card usually factory fitted into an Mx-4000 multi loop panel
- Mxp-021-BXP is a splitter and 4 Amp EN54-4 power supply mounted in a metal enclosure. This unit provides up to 1 Amp output on each of the ancillary circuits.

Specification

Sounder Input	"IN+" and "IN-" - Connect to the input trigger (panel sounder Output circuit)
	"OUT+" and "OUT-" - Connect to the remainder of the input sounder circuit or terminate with a 10KΩ EOL resistor.
On Board Indication	4 "red" sounder LED's - LED's illuminate when the output is triggered
	4 "yellow" Fault LED's - LED's illuminate if the corresponding sounder Circuit has a short or open circuit

Formats	1A Splitter	4A Splitter
Sounder Outputs	4 monitored sounder circuits (Total maximum load across all circuits = 1A)	4 x 1A rated monitored sounder circuits
Power Supply (Sounder Outputs)	Sounder output supply provided by the input (trigger) sounder circuit	Sounder output supply provided by an external 24Vdc 4A supply
Power Supply (Card)	Quiescent: 25mA Driving: 50mA	Quiescent: 30mA Driving: 55mA
Dimensions (H x W x D)	Enclosure: (Mxp-021-BXP) 320mm x 345mm 85mm	

Order Codes

Mxp-021: 4 Way Sounder Splitter Card

Mxp-021F: 4 Way Sounder Splitter Card fitted within an Mx-4200 / Mx-4400 or Mx-4800

Mxp-010

BMS/Graphics Interface

Analogue Addressable Fire Peripheral

The Mxp-010 interface allows BMS systems and Graphical PCs to be integrated with the Mx-4000 series of Fire Control Panels and Remote Terminals.

The interface is an integral part of the Ad-Net network permitting the handling of all network traffic and event prioritisation, via a PC, using a simple RS232 connection.

Multiple interfaces can be connected to the network catering for sites requiring control from a number of Graphical PC's.

Key Features

Standard & FT Network versions

24v DC Supply

Easily configured via PC-NET-003

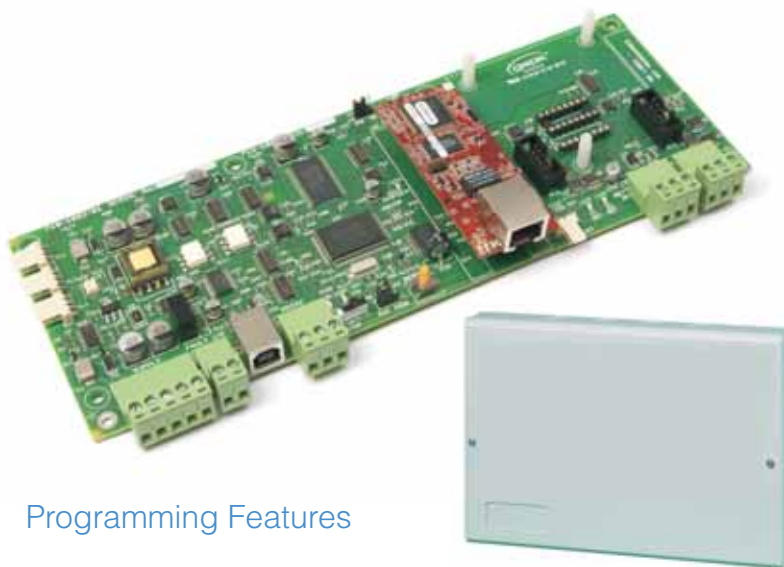
3 Year Warranty as standard

Applications / Limitations

Provides connection to various 3rd party Graphics Systems (Contact Sales for an up-to-date list of compatible systems).

Compatibility

Can be used with any Ad-NeT or Ad-NeT+ network series control panels.



Programming Features

- Sector based programming
- Each BMS interface is individually programmable with the available 'Dynamix' cause and effects rules.
- Adjustable baud rate for 3rd party integration

Specification

Supply Voltage Input	18-28V DC
Operating Temperature	-5°C to 50°C
Relative Humidity	95% non-condensing (maximum)
PCB(HxWxD)	88mm x 242mm x 18mm, 75 grams
Indications	On-board LED indicators for Heartbeat, network transmit/receive and RS232 transmit/receive
Supply Current	Standard 48mA (/FT 86mA) at 24v DC
Serial Interface	Isolated RS232 Interface for BMS/PC
Fault Input	Monitored Volt Free Clean Contact
Weight	2 Kg
Enclosure (HxWxD)	218mm x 300mm x 45mm

Order Codes

Mxp-010-BX: Standard Network BMS Interface Boxed

Mxp-010-BX/FT: Fault-Tolerant Network BMS Interface Boxed

Mxs-010: Standard Network BMS Interface PCB

Mxs-028: FT Network Card suitable for Standard BMS Interface PCB

Mxp-026

Sounder Booster Card

Analogue Addressable Fire Peripheral

The Advanced 4A Sounder Booster (Mxp-026) is a peripheral unit that utilises a standard sounder circuit, panel or loop driven, and provides increased sounder output capability.

This boosted output is fully monitored for open and short circuits and will take an independent supply to provide up to 4A of sounder current to a single circuit.

On-board indication via 2 LED indicators located on the booster PCB enable the user to view when an output has been triggered and when an external power supply has been connected.

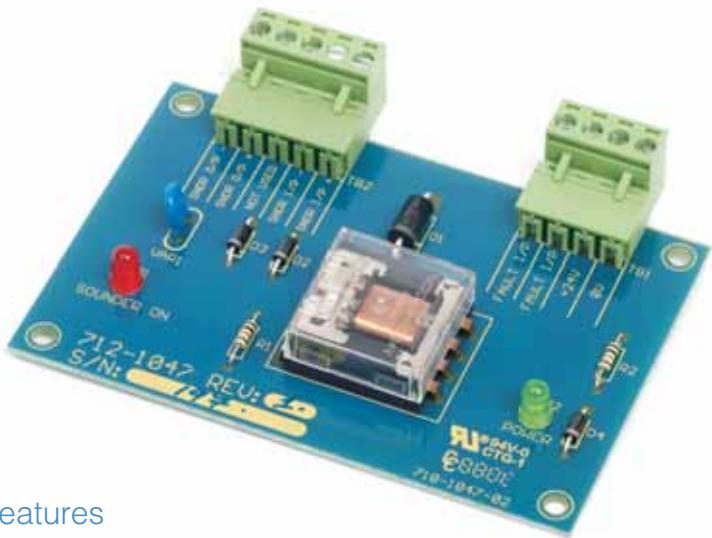
Key Features

- Increased Sounder capability up to 4A
- On-board Indication
- PSU Fault Input Contacts
- 3 Year Warranty as standard
- Cost Effective against ancillary hardware

Applications / Limitations

The sounder booster is used where a single sounder output circuit of up to 4A is required.

Each of the panel's sounder outputs can only monitor a single circuit. The unit must therefore be situated at the end of the panel's sounder output circuit to maintain correct fault monitoring.



Features

- The unit is available in 2 formats:
- Mxp-026 is a booster card only for mounting in a customers /OEM enclosure or within an Mx-4000 multiloop panel
 - Mxp-026-BXP is a booster card and 5 Amp EN54-4 power supply unit mounted within in a metal enclosure

Specification

Sounder Input	“SNDR I/P+” and “SNDR I/P-” Connect to the Input trigger (panel sounder output circuit) 1 monitored sounder circuit (Total maximum load = 4A)
On board indication	1 “red” sounder LED. LED illuminates when the output is triggered. 1 “green” power LED. LED illuminates when an external supply is connected.
Power Supply (-BXP)	Input: 230V AC 50Hz Output: 5 Amp EN54 Power Supply. Nominal output voltage = 27.3V DC
Current Consumption (Derived from sounder circuit I/P)	Quiescent: 0mA Driving: 17mA
Dimensions	PCB only: 70mm x 105mm x 18mm Enclosure: 320mm x 345mm x 85mm

Order Codes

- Mxp-026:** 4A Sounder Booster card (requires a minimum 4 Amp power supply and enclosure)
- Mxp-026-BXP:** 4A Sounder card Boxed with 5A PSU

Compatibility

The Mxp-026 is compatible with all Mx-4000 control panels

Mxp-019

8-Way Input / Output Card

Analogue Addressable Fire Peripheral

The Mxp-019 is a stand-alone fire system peripheral that utilises the Hochiki ESP Loop Protocol for connectivity to the Mx-4000 range of control panels. It provides 8 individually Monitored/Programmable Switch Inputs, and 8 individually Programmable Mains Rated, Volt Free outputs. It also provides monitoring for a local PSU being used when installed remotely from the main control equipment.

Key Features

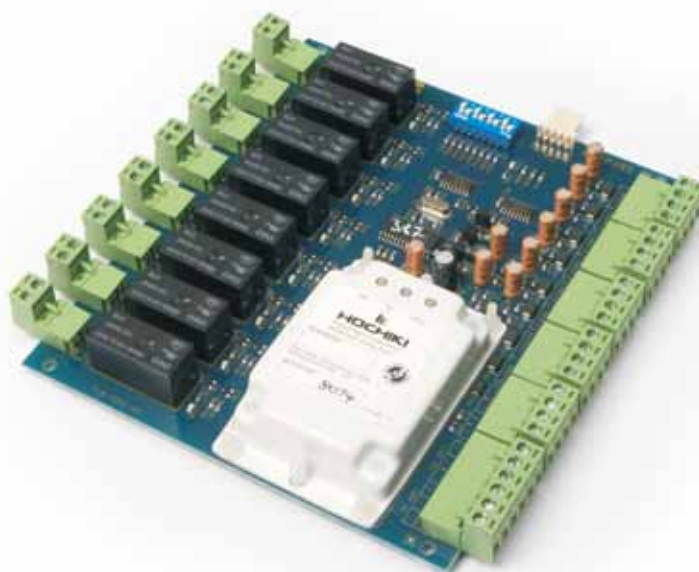
- 8 Individual Switch Inputs
- 8 Individual Programmable Outputs
- 3 Year Warranty as standard
- Cost effective against ancillary hardware
- Hochiki Protocol

Applications / Limitations

Ideal for any applications where a number of remote switch inputs and / or outputs have to be interfaced into a fire alarm system. Since the unit only takes up one loop address a large number of I/O can be accessed.

A maximum of 60 Mxp-019 devices can be connected to a single Mx-4000 multi-loop control panel, and up to 15 to the Mx-4100 control panel (excluding all detection devices).

The Mxp-019 is compatible with all Mx-4000 control panels using Hochiki ESP protocol from software revision 17-01 onwards.



Inputs

In use, each input can be assigned to an individual or common zone, can be configured as monitored or un-monitored and can be individually programmed to generate a specific user defined function from the control panel programme. The Input functions can be either latched or non latched and include Fire, fault, Pre-Alarm, Security, Alarm etc. together with any other programmable input option allowed within the Mx-4000 system's Dynamix zoning facilities.

Outputs

For the outputs, each one can be individually assigned to an output group and has a number of programmable operational parameters including fail-safe, can silence, allow walk test and delayed operation.

Synchronisation

Where outputs on multiple 8-way I/O cards are contained within a common group, all outputs within the group are connected together on the same detection loop are synchronised.

Order Codes

Mxp-019: Hochiki 8 Way I/O Card

Mxp-019-BX: Boxed Hochiki 8 Way I/O Card

Mxp-019-BXP: Boxed Hochiki 8 Way I/O card c/w 1A EN Power Supply & Charger.

Mxp-029

Shop interface Unit

Analogue Addressable Fire Peripheral

The Advanced Shop Interface Unit allows Mx-4000 control panels to send and receive alarm signals from other equipment.

Input signals are received from clean-contact inputs two of which support the open circuit and short circuit fault monitoring on the external wiring.

A special input is also able to differentiate between an input that is pulsing (ALERT), and one that is continuous (EVAC), allowing easy interfacing to older equipment that can not provide independent Alert and Evacuate signals.

Two fully programmable outputs are also provided to allow signals to be transmitted to other equipment.

Key Features

- Mx-4000 Compatible
- 3 Year Warranty as standard
- Special Pulse/Continuous detecting input
- 2 x Volt-free Normally Open Contacts
- 2 x Monitored Switch Inputs
- 2 x Clean Contact Switch Inputs

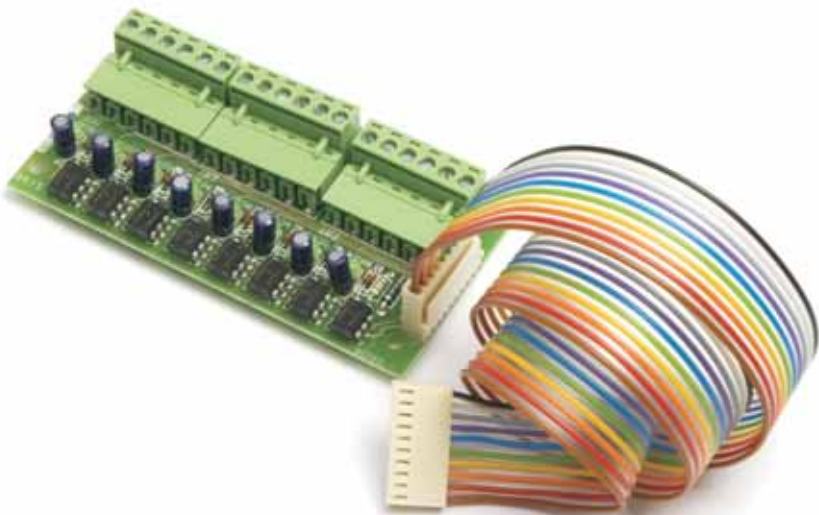
Applications / Limitations

Inputs

- Input A : Monitored switch input.
- Input B : Monitored switch input.
- Input C : Pulse/Continuous detecting input.
- Input D : Clean contact switch input.
- Input E : Clean contact switch input.

Outputs

- Relay 1 : Volt-free Normally open relay contacts
- Relay 2 : Volt-free Normally open relay contacts



Programming Features

- Special pulse / Continuous Detecting Input
- 2 x Volt-Free Open Contacts
- 2 x Monitored Switch Inputs
- 2 x Clean Contact Switch Inputs

Specification

Quiescent Current	12mA
All inputs activated / Relays off	22mA
All inputs activated / Relays energised	34mA
Relay contact Rating	1 Amp 30V DC/AC max
Maximum Working Temperature	50°C

Order Codes

- Mxp-029 : Shop Interface Unit
- Mxp-029/F : Shop Interface Unit – Fitted

Compatibility

The Shop Interface Unit can internally mounted to the following equipment:

- Mx-4200, Mx-4400 & Mx-4800 control panels – directly onto the chassis.
- Mx-4100/L control panel – on the rear face of the back box.

This interface is supported from panel software revision 016 onwards.

Limitations

The Interface is used in place of the standard MXP-014 8-way input board (i.e. don't attempt to fit both units to the same chassis).

Mxp-053

Latch/Stretch Input Card

Analogue Addressable Fire Peripheral

The Mxp-053 Input Latch / StretchModule provides monitoring for two momentary switch inputs. The module can be configured for Latch or Stretch Modes of operation. The module can be configured for wiring supervision using the End-of-Line resistor of the host input device. A reset input is provided for the reset of a latched condition.

Key Features

The module can be loop powered.
3 Year Warranty as standard

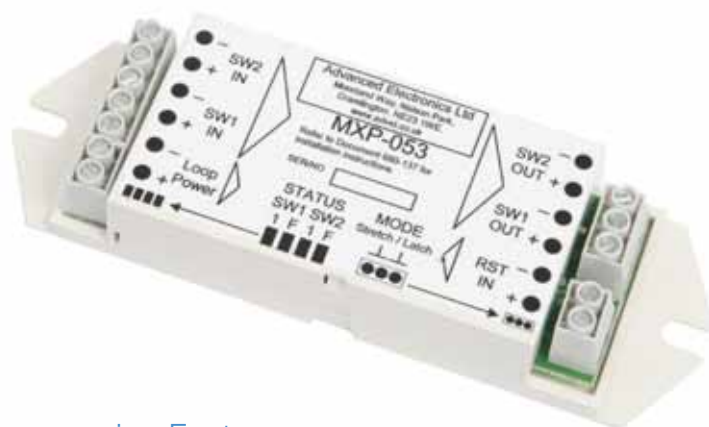
Applications / Limitations

Can be used to monitor the operation of a momentary switched input that has been interfaced to the Fire Alarm Control Panel via loop devices or on-board inputs.

Two modes of operation are available for momentary switched operation - Latched or Stretched (30 Seconds).

Can be powered by a separate 24V DC supply, or loop powered.

Common reset input (volt-free) allowing reset of the latched condition.



Programming Features

- Two modes of operation - Latched or Stretched
- Monitored or Non-Monitored connectivity
- Loop Powered
- Configurable for Advanced, Apollo, Hochiki Input Circuits

Specification

Applicable Standards	BS EN54-2
Relative Humidity	-95% Non Condensing
Enclosure	Plastic ABS Recyclable, 130mm x 42mm x20mm, 40 grams
DC Supply	24V (17-28V) DC, 10mA
Input Circuit	Volt Free / End-of-Line 10K
Output Circuit	Volt Free / End-of-Line 10K/20K,Max 30V DC
Reset Input Circuit	Volt Free
LED Indication	4 x LED, Input Active & Wiring Fault per Input

Compatibility

Any volt-free switched input circuit.

End-of-Line monitoring optional when used in conjunction with Advanced Electronics, Apollo, or Hochiki control equipment.

Order Codes

Mxp-053: Dual Input Module

Mxp-046

Damper Interface Card

Analogue Addressable Fire Peripheral

Key Features

- Single unit integration
- Selectable monitoring
- Fail-safe options

Applications

- For use Dampers that are normally held open
- Fail-safe operation only applicable to electrically opened & mechanically closed dampers

Compatibility

- Use with dedicated damper panels using Hochiki protocol devices
- Mx Series Fire panels require Version019-01 (or higher) program to use with Apollo protocol devices
- PC configuration program must be 4.10 (or higher) to support damper interface units.



Programming Features

- Damper Motor drive and limit switch monitoring integrated into a single unit
- Dual limit switch inputs for confirmation of damper-fully-open, and damper-fully-closed positions
- Selectable monitoring on switch inputs to prevent short circuits in the wiring from giving false position readings
- Fail-safe options in case of data errors in the communications loop

Specification

Enclosure Dimensions (H x W x D)	300 x 200 x 150mm - Steel IP66
Colour	RAL 7032 Light Grey
Weight	4Kg
PCB Dimensions	70mm x 142mm (35mm high)
Operating Temperature	-5°C to 40°C
Realative Humidity	95% non-condensing (maximum)
Mains Supply	230V AC, 50Hz (+10%,-15%), 30mA (plus motor load)
Motor Switch Rating	1.0A
Fuse (PCB)	T3.15H250V
Fuse (Fuse terminal block)	T3.15H250V
Data loop current	1.6mA

Order Codes

- Mxp-046: Damper Interface Card
- Mxp-046-BX1: Damper Interface Boxed

Mxp-047

Pager Interface

Analogue Addressable Fire Peripheral

The Advanced Mxp-047 is a programmable interface providing connectivity of third party paging systems to the Mx-4000/5000 control equipment. It utilises the industry standard protocol ESPA 4.4.4, and connects to the equipment via a serial data connection.

An optional input function is available to monitor pager fault conditions.

Specific Event Types (e.g. Fire, Alarm, Pre-Alarm, Fault, etc.) can be sent to individual pagers and / or to groups of pagers.

Key Features

ESPA 4.4.4 Protocol

Panel Mounted or Boxed version

3 Year Warranty as Standard

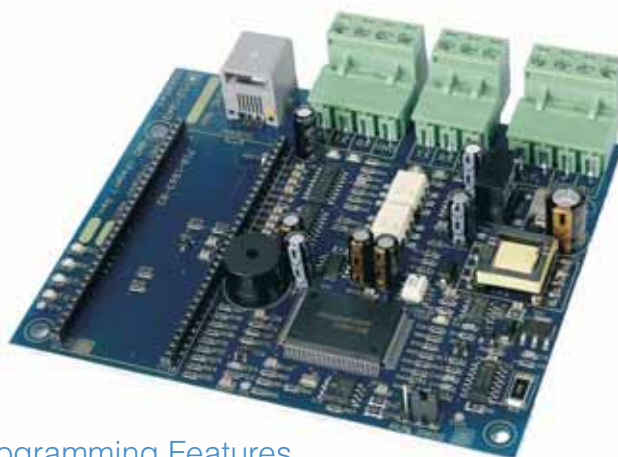
Mx-4000/5000 Series Compatible

Easily Configured via Pager PC Software

Applications / Limitations

For use with Pager Systems compliant to ESPA 4.4.4 protocol

If a printer is also required, fit an internal Mxp-012 printer assembly.



Programming Features

- + Up to 8 configurable shifts per weekday / weekend
- + Up to 50 pager groups
- + Up to 250 pager Addresses
- + Each pager address can be configured to cover 2 Zone Ranges
- + Zone and / or Point Information can be sent to the pager
- + User defined texts are available and the basic event type text can be configured

Specification

Power supply	15-30V DC (e.g. Wired from Panel 24V auxiliary supply)
Supply current	100mA (typical at 24V DC)
Temperature	-5°C to 50°C
Humidity	95% Humidity (non condensing)
Dimensions	Enclosure: 218 x 300 x 45 (H x W x D)mm
Pager Interface	RS232 Galvanically (Opto) isolated
Fault Input	Non-Monitored / Monitored (10K EOL, 470R active)
Event Types Supported	Fire Alarm, Test Alarm, Plant Alarm, Pre-Alarm, Fault and Disablement

Order Codes

Mxp-047:	Pager Interface Card
Mxp-047/F:	Pager Interface Card (Fitted)
Mxp-047-BX:	Pager Interface Card (Boxed)

Compatibility

PC-NET-011 Configuration program (MxPager) is provided for configuring the pager interface.

For compatibility tested pager systems contact your area sales representative.

The Mxp-047-Bx can be used with all Mx-4000/5000 Series panels.

Mxp-015,016 & 017

Key-Switch Control

Analogue Addressable Fire Peripheral

The Mxp-015 Key-Switch Interface Card is an optional module to provide installation of up to eight key-switches to a single control panel.

Key Features

Simple to install and configure
Trapped and Un-Trapped Key Switches
For use with all advanced control panels

Applications / Limitations

Two key-switches can only be fitted to an Mx-4100

Up to four key-switches can be fitted when an on-board printer is installed.

Compatibility

Can be used with Mx-4100, Mx-4200, Mx-4400 and Mx-4800 control panels.

Compatible with the PC Configuration Tool from version 3 or later.

One key-switch can be fitted to any panel as standard. Installation of two or more key-switches will require the Mxp-015 key-switch Input Card.



Programming Features

- Enable/Disable Controls
- Group Isolate to disable I/O across network
- For use to start/enable a Class Change
- Trapped and Un-Trapped key-switches available
- Control of Multi-Sensor / Device sensitivity mode change

Order Codes

Mxp-015*: 8 Way Key Switch Input Card

Mxp-016*: Key Switch Assembly - Trapped

Mxp-017*: Key Switch Assembly - Un-Trapped

Mxp-018*: Key Switch Assembly - Trapped (For use with Repeaters)

*F: Fitted

Mxp-031

Peripheral Bus Adaptor Card

Analogue Addressable Fire Peripheral

The Peripheral Bus (P-Bus) has been designed to provide a serial interface connection to a range of new peripheral interface modules

Key Features

3 Year Warranty as standard

Applications / Limitations

Provides a serial interface bus for connection of a range of peripheral interface modules now available as follows:

Mxp-032 General Routing Interface
Mxp-034 - Programmable Sounder
Mxp-035 - Programmable Relay Card

...and more future releases to come.

Compatible Interface modules can be mounted internally in the panel, or in separate enclosures. External wiring is classed as local use only with a maximum line distance of 20 metres and should run in rigid conduit.



Programming Features

- Provides an additional interface to the control panel for connection of a range of peripheral modules and extended functions
- Optically Isolated Interface

Specification

Data Communications	Two-wire, optically isolated, balanced line, communications interface
On-board Indications	TX & RX Communications LED indicators
Number of Modules	Up to 31 peripheral modules per panel
Operating Power	5V DC
Standby Current Consumption	5mA
Operating Temperatures	0°C to 50°C

Compatibility

Can be used with Mx-4200, Mx-4400 and Mx-4800 control panels fitted with a base card hardware revision level 10 (712-1022 Mx-4400) and 09 (712-1022-002 Mx-4200), or later.

Panels programmed with Version 019 software, or later - refer to the data sheet for each peripheral module for the version of software required to support the peripheral module.

Mxp-032 General Routing Interface

For an up to date list of Additional Input / Output Modules available contact sales.

Order Codes

Mxp-031: Peripheral Bus Adaptor Card

Mxp-031F: Peripheral Bus Adaptor Card (Fitted)

Mxp-032

General Routing Interface

Analogue Addressable Fire Peripheral

The Mxp-032 General Routing interface Card is an optional module to provide Fire Routing Outputs complaint with BS EN54-2: 1998 Clauses 7.9 and 8.9 and BS5839-1:2002

Key Features

- Simple to install and configure
- Monitored Outputs
- Wide range compatibility

Applications / Limitations

EN54-2 compliant routing interfaces providing monitored outputs to fire alarm and routing circuits. Circuits are monitored for open and short circuit conditions in both normal and active mode - Compliance with EN54-2 and BS5839-1: 2002 Clause 12.2.1a

The outputs will drive relay coils with impedances of between 1kΩ and 5kΩ.

Compatibility

Can be used with Mx-4200, Mx-4400 and Mx-4800 control panels programmed with version 019-04 software, or later, and fitted with base card hardware revision levels 10 (712-1022 mx4400) and 09 (712-1022-002 Mx-4200) or later. Compatible with the PC-Configuration Tool from version 4.19 or later.

Requires installation of the Mxp-031 Peripheral Bus Adaptor card in the panel.



Programming Features

- Two Fire Routing Outputs are provided to differentiate between Call Point (MCP) and Automatic Detector (AFD) Fire Alarm Signals if required.
- Outputs are monitored for open and short circuit wiring issues in both the quiescent and active states, and fault conditions reported on the panel (CIE) display / LED Indicators.
- Outputs are compatible with a wide range of routing equipment.

Specification

Output Circuit Spec.	24V DC Active, 5V DC Monitor
Fire & Fault Outputs	1.0mA monitor mode nominal, 5.0mA-25.0mA active (energised) mode dependent upon coil impedance, 40.0mA maximum short circuit.
Input Circuit Spec. (Future Option)	4x Monitored Input - EOL 10KΩ, Operating Resistor 470Ω
Operating voltage	24V DC [Range 19-28V] from panel Auxilliary Supply Output.
Panel loading, standby,	43mA
AC Mains fail (fault output off)	
Panel Loading, quiescent state (fault output on)	45mA +24mA (1KΩ coil), +5mA (5KΩ coil)
Panel Loading, ALL inputs and outputs active	48mA +72mA (1KΩ coils), +15mA (5kΩ coils)
On-board indications	6x LED Indicators for Outputs Active, Communications and Microprocessor Heartbeat
Operating Temperature	0°C to 50°C
Approvals	BS EN54-2: 1998

Order Codes

Mxp-032: General Routing Interface

Mxp-032F: General Routing Interface - Fitted

Mxp-034

Programmable Sounder

Analogue Addressable Fire Peripheral

The Programmable 4-Way Sounder Card is an optional peripheral unit that provides four individually programmable, and monitored, sounder output circuits compliant with BSEN54-2: 1998 Clause 7.8.

Up to 16 Cards can be connected to a multi-loop panel providing a maximum of 64 additional local sounder outputs.

Each output is fully programmable using the powerful 'Dynamix' Cause and Effect rules, and all outputs are synchronised.

The unit is available as either a printed circuit card only or as a boxed version with integral 4A power supply*.

Key Features

4 Way Programmable Sounder card
16 cards max per Control panel totalling 64, 1 Amp rated outputs
Easily configured via PC-NET-003
3 Year Warranty as standard
Fully Synchronised

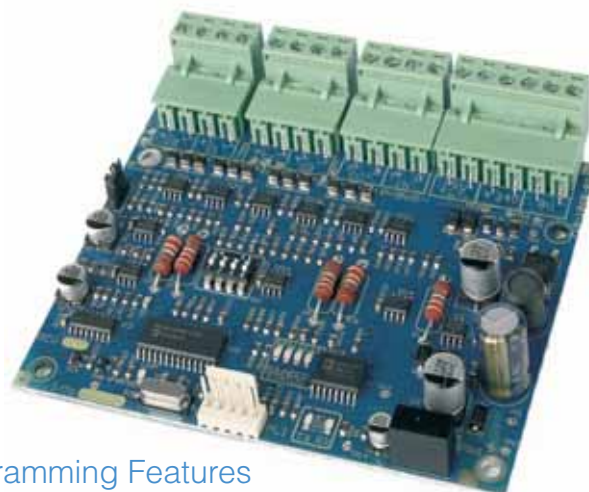
Applications / Limitations

EN54-2 compliant sounder outputs.

Compatibility

Can be used with Mx-4200, Mx-4400 and Mx-4800 control panels programmed with Version 020-02 software, or later, and fitted with base card hardware revision levels 10 (712-1022 Mx-4400) and 09 (712-1022-002 Mx-4200) or later.

Requires installation of the Mxp-031 Peripheral Bus Interface Adaptor card in the panel.



Programming Features

- Each output is 1A rated, and monitored for open and short circuits.
- Each output is individually programmable using the 'Dynamix' Cause and Effects rules.
- All outputs can be synchronised in pulsing modes.
- Up to 16 cards can be connected giving a total of 64 additional outputs.
- Each output may be individually programmed

Specification

Applicable Standards	BS EN54-2: 1998, BS EN54-4: 1998
Operating Temperature	-5°C to 40°C
Relative Humidity	95% non-condensing (maximum)
PCB	110mm x 86mm x 18mm, 75 grams
Enclosure	Steel, IP30, RAL9002, 320mm high x 345mm wide x 88mm deep, 5 kg (excluding batteries)
Knockouts 20mm	7 x Top, 2 x Bottom
PCB Supply	24VDC nominal (21-28VDC), 17mA (quiescent) 64m (all outputs on) + sounder load
AC Supply	230V AC, 50Hz (+10%, -15%) FUSE T3. 15H250
Standby Battery	2 x 12V, 7AH Sealed lead-Acid Type (Yuasa recommended)
LED Indications (PCB)	Sounder Circuit ON, Communications TX & RX and Heartbeat
LED Indications (Box)	Power and General PSU Fault - Separate indications of specific PSU fault conditions are available on the PSU.
Outputs (x4)	24VDC 1A

Order Codes

Mxp-034: 4-Way Programmable Sounder Card

Mxp-034-BXP: 4-Way Programmable Sounder Card Boxed with 4A PSU

Mxp-035

Programmable Relay

Analogue Addressable Fire Peripheral

The programmable 4-Way Relay Card is an optional peripheral unit that provides four individually programmable relay output circuits.

Up to 16 Cards can be connected to a multi-loop control panel providing a maximum of up to 64 additional local relay outputs.

Each output is fully programmable using the powerful 'Dynamix' cause and effects rules, and all outputs are synchronised.

The unit is available as either a printed circuit card only, or as a boxed version with integral 1A power supply.

Key Features

- 4 Way Programmable Relay Card
- 16 Cards Max per Control panel totalling 64, 230V, 5 Amp rated outputs
- Easily Configured via PC-NET-003
- 3 Year Warranty as standard

Applications / Limitations

Plant Control and Signalling outputs. Each output can be assigned to an individual output group and is fully programmable for any output function allowed within the Mx-4000/5000 configuration program.

Fitting of the Mxp-035 in a panel precludes fitting of other panel option cards. Requires installation of the Mxp-031 Peripheral Bus Interface Card in the panel.



Features

- Each output is 230V, 5A rated
- Each output is individually programmable with any of the available 'Dynamix' Cause and Effect rules
- Up to 16 cards can be connected providing a total of 64 additional outputs
- Each output may be individually programmed
- An Input is provided to monitor the fault output from a power

Specification

Applicable Standards	BS EN54-2:1998, BS EN54-4:1998
PCB	100mm x 86mm x16mm: 24VDC nominal (18-28VDC), 22mA (quiescent) 75mA (outputs on)
Knockouts 20mm	7 x Top, 2 x Bottom
AC Supply	230V AC, 50Hz (+10%, -15%) FUSE T3.15H250
Standby Battery	2x12V, 7Ah Sealed Lead-Acid type (Yuasa recommended)
LED Indications (Box)	Power and General PSU Fault - Separate indications of specific PSU fault conditions are available on the PSU.
Enclosure	Steel, IP30, RAL9002, 320mm high x 345mm wide x 88 mm deep, 3Kg (excluding batteries)
LED Indications (PCB)	Relay circuit ON, Communications TX & RX and Heartbeat
Outputs (x4)	230V AC, 5A resistive / 230V AC, ½ HP / 30VDC, 5A

Order Codes

- Mxp-035: 4-Way Programmable Relay Card
- Mxp-035-BXP: 4-Way Programmable Relay Card Boxed with 1A PSU

Mxp-036

Programmable Zone Monitor Card

Analogue Addressable Fire Peripheral

The Programmable 8-Zone Monitor Card is an optional peripheral unit, that provides eight individually programmable zone monitor circuits compliant with BSEN54-18: 1998 Clause 7.8.

Up to 16 Cards can be connected to a multi-loop panel providing a maximum of up to 128 additional zone monitor circuits.

Each zone is fully programmable using the powerful 'Dynamix' Cause and Effect rules.

The unit is available as either a printed circuit card only, or as a boxed unit

Key Features

- 8 Zone Circuits
- 1 Relay Output for Reset
- 16 cards max per Control panel totalling 128 Zone Monitor Circuits per panel
- Easily configured via PC-NET-003
- 3 Year Warranty as standard

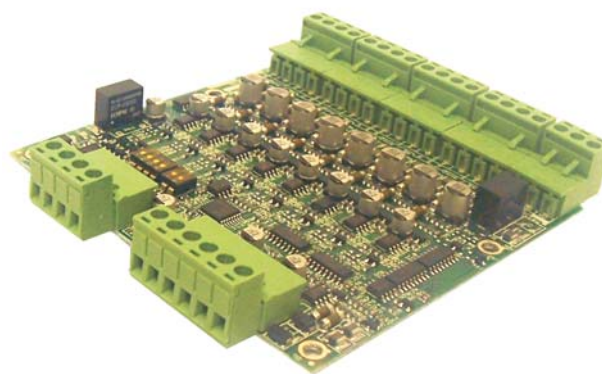
Applications / Limitations

EN54-18 compliant zone monitor circuit.

Compatibility

Can be used with Mx-4200, Mx-4400 , Mx-4800, and all Mx5000 series control panels

Requires installation of the Mxp-031 Peripheral Bus Interface Card in the panel.



Programming Features

- Each zone is monitored for open and short circuit
- Each zone is individually programmable with the available 'Dynamix' Cause and Effect rules.
- Up to 16 cards can be connected giving a total of 128 additional zone monitors.

Specification

Applicable Standards	BS EN54-18 Compatible
Operating Temperature	-5°C to 40°C
Relative Humidity	95% non-condensing (maximum)
PCB(HxWxD)	100mm x 105mm x 18mm, 75 grams
Switch/Zone Inputs	8 Monitored Inputs (680R EOL, 470 active)
PCB Supply	24VDC nominal (21-28VDC), 100mA (quiescent) 500mA (all zones short circuit)
Relay Output (x1)	24VDC, 1A
Fault Input	Volt-Free, Clean Contact

Order Codes

Mxp-036: 8-Way Programmable Zone Monitor Card

Mxp-036F: 8-Way Programmable Zone Monitor Card Fitted

Mxp-037

10 Way Programmable Monitored Input Card

Analogue Addressable Fire Peripheral

The Programmable 10 Way Input Card is an optional peripheral unit that provides ten individually programmable monitored switch inputs.

Up to 16 Cards can be connected to a multi-loop control panel providing a maximum of up to 160 additional monitored inputs.

Each input is fully programmable using the powerful 'Dynamix' Cause and Effect rules.

The unit is available as either a printed circuit card only, or as a boxed unit

Key Features

- 10 Programmable Inputs (Monitored)
- 24v DC Supply
- 16 cards max per Control Panel totalling 160 monitored inputs per panel
- Easily configured via PC-NET-003
- 3 Year Warranty as standard

Applications / Limitations

EN54-18 compliant switch monitor circuit.

Compatibility

- Can be used with Mx-4200, Mx-4400 , Mx-4800, and all Mx5000 series control panels
- Requires installation of the Mxp-031 Peripheral Bus Interface Card in the panel.



Programming Features

- Each input is monitored for open and short circuit.
- Each input is individually programmable for Fire, Fault, Alarm etc.
- Up to 16 cards can be connected providing a total of 160 additional switch inputs.

Specification

Applicable Standards	BS EN54-18 Compatible
Operating Temperature	-5°C to 40°C
Relative Humidity	95% non-condensing (maximum)
PCB(HxWxD)	100mm x 105mm x 18mm, 75 grams
Switch Inputs	10 normally open inputs. (Can be inverted via software for normally closed operation on an individual basis).
PCB Supply	24VDC nominal (21-28VDC), 30mA (quiescent) 100mA (all zones short circuit)
On Board Indication	RS485 (Transmit/Receive)& Heartbeat

Order Codes

- Mxp-037: 10-Way Programmable Relay Card
- Mxp-037F: 10-Way Programmable Relay Card Fitted

Mxp-054

ipGateway

Analogue Addressable Fire Peripheral

The ipGateway connects to an existing Ad-Net fire panel network, and provides a gateway to the network from any remote location via the internet.

By gathering real time information from the fire network it gives a visual indication of the state of the fire panel network through a standard web browser.

The state of each device on the network is displayed in a clear and concise manner.

Interaction with the fire network is also available, providing the functionality to enable/disable zones, enable/disable devices, reset, mute, and silence/resound sounders on the network.

The ipGateway can also be configured to react to events on the network by sending emails to configured recipients.

Key Features

Remote Access to Ad-Net/Ad-Net+ fire network.

Password protected.

Event notification via email.

Configuration over the internet.

No propriety software required.

Applications / Limitations

Provides remote access to devices on an Ad-Net/Ad-Net+ Network.

Configurable event email notification.

Features

- Remote Access to Ad-Net fire network using a standard Web Browser
- Password Protected
- Multiple User Permissions
- Event Notification via Email
- Configurable over the Internet



Specification

Supply Voltage input	18-28V DC
Supply Current	48mA/FT: 86mA) at 24V DC
Enclosure	IP30: Dimensions 218mm H x 300mm W x 45mm D
Weight	2 Kg
Knockouts	4 Top, 4 Bottom, 4 Bottom Rear
Temperature range	-5°C to 50°C / 95% Humidity (non condensing)
Serial Interface	Isolated RS 232 Interface
Fault Input	Monitor Input for Power Supply Fault Output
Indications	On-board LED indicators for Heartbeat, Network transmit / receive, RS232 transmit / receive, Lan Activity, Lan Connectivity, Lan Run
Ethernet Interface	10Base-T, RJ45

Order Codes

Mxp-054 ipGateway interface boxed

Mxp-054/FT ipGateway interface boxed/fault tolerant

Compatibility

The ipGateway can be connected to any Ad-Net/Ad-Net+ network system and Local Area Network. This interface can be configured using PC-NET-003 configuration software v5 onwards, and Panel software version 23.02 onwards.

Browsers – Internet Explorer 6,7 and Firefox 2

Mxp-052

10 Way Mimic Relay Card

Analogue Addressable Fire Peripheral

The Mxp-052 is a peripheral relay card providing ten 30V DC, 1A programmable relay outputs.

The Mxp-052 connects directly to any of the DIL connectors of either the Network Mimic Mxp-020-100 LED Output Card or the General I/Ocontroller Mxp-045 LED Output Card units via the supplied ribbon cable.

Each output follows the cause and effect programming of the mimic unit output.

This can be either a simple zone output or can be an individually programmed output group rule utilising the full range of features of the Mx-4000/5000 systems Dynamix zoning facilities.

Key Features

Up to 200 individual relay outputs fully programmable per mimic (excluding Leds).

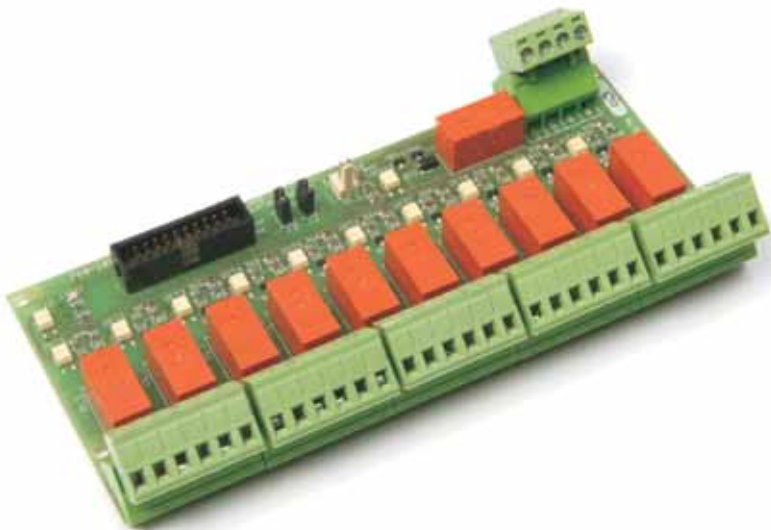
Ten individually programmable relay outputs per unit

Applications

These units can be used where many relay outputs are required for simple on/off signalling or control.

Compatibility

Can be used with any of the Mxp-020 Mimic Units or the Mxp-045 I/O units.



Features

- Ten Change-over contact outputs rated at 30V DC, 1A.
- DIN Rail or Screw Fixing Options
- Separate isolate Input (Disables all Outputs)
- Separate Isolate Indication Output
- Fast Instant Response

Specification

Enclosure Dimensions	90 x 160 x 15mm (PCB)
(H x W x D)	90 x 160 x 40mm (Din Rail)
DIN RAIL	Module mounts onto 32mm G Section and 35mm Top Hat (En50022) DIN Rail
PCB Dimensions	70mm x 142mm (35mm high)
Operating Temperature	-5°C to 40°C
Relay Contacts	10 Volt Free Change Over Contacts
Contact Rating	30V DC, 1A Resistive
Power Supply	24v DC nominal (21-28V DC)
Current (@24V DC)	Quiescent: 0mA, Relay On:13mA (per Relay)
LED Indication	Relay Circuit ON (per relay)
Disable Control Inputs	Volt-free Input and mimic output drive option
Disable Indication	Open Collector Output

Order Codes

Mxp-052: 10 Way Relay Card

Mxp-046-DIN: 10 Way Relay Card in Din Rail Carrier

Mxp-045

50 Way Network I/O

Analogue Addressable Fire Peripheral

The Mxp-045 provides a convenient and cost effective solution where multiple inputs and outputs are required.

It is ideally suited for building control functions such as damper / fan control or sprinkler control where On/Off/Auto control and healthy/fault or open/closed status indication is required.

The inputs can be configured as toggle (switch) or momentary (push-button) types. The outputs are fully programmable using the powerful 'Dynamix' cause and effects rules for output groups 1-50.

In addition to the 50 I/O circuits, dedicated inputs and outputs are also provided. Status outputs include General Fire, Fault, Disablement and Test. A buzzer is also provided for audible annunciation of status changes. Inputs include Buzzer Mute, Momentary input enable / reset and LED Test.

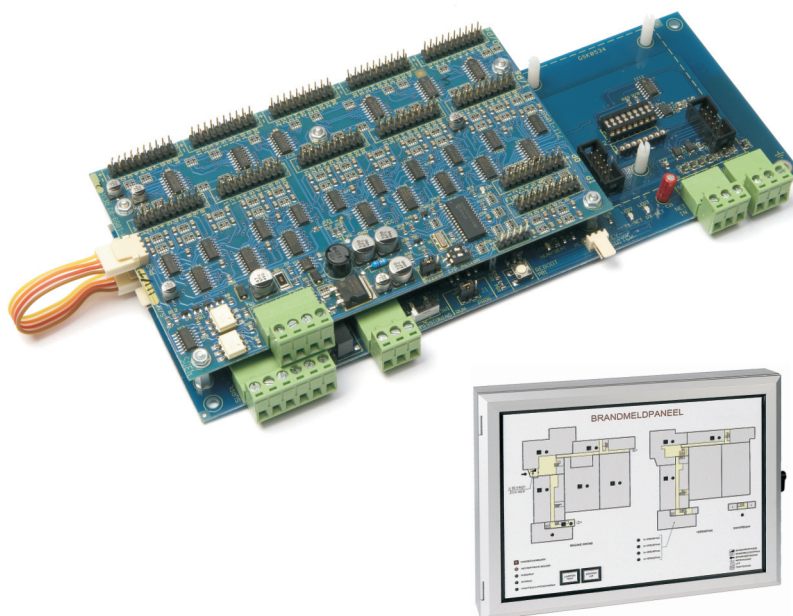
Key Features

50 Inputs & Outputs available
Supplementary Graphical Indication
Zonal or Fully Programmable LED Option
3 Year Warranty as standard
Fully Networkable
Full Colour Mimic Option

Applications / Limitations

The 50-Way Network I/O controller is a stand-alone unit with / without its own EN54-4 power supply and charger. Each input and output on the card is fully programmable using a PC.

An additional 100 LED outputs can be provided using the 100-way driver card (Mxs-027) – Output Groups 101-200.



Features

- Over 50 Programmable volt free switch/push button type inputs, easily configured via our PC-NET-003 configuration software
- Over 50 Programmable LED driver outputs for energising and providing LED indication
- Large Full Colour graphical indication for site maps, building layouts or simply zonal indication.
- Remote Location by simply adding the type of mimic interface onto the Ad-net/Ad-neT+ Network

Specification

AC Supply (Boxed Versions)	220-240V AC (+10-15%) 50-60Hz 1.6A. Support for up to 2 x 12V 7Ah batteries
DC Supply (PCB) @ 24V DC	18-28V DC 63mA (/FT 101mA) + 0.8mA per LED energised + 1.3mA per switch energised
Output Drive Circuit (56)	3.3V 4mA current limited (for direct LED connection)
Input Circuit (58)	Volt-free, dry-contact inputs

Order Codes

Mxp-045 (/FT): 50-Way Network I/O Controller (Unboxed).

Mxp-045-BX2 (/FT): 50-Way Network I/O Controller (type 2) c/w PSU and up to 56 LED indicators and up to 58 Switches fitted (Artwork required).

(/FT): Denotes Fault tolerant version

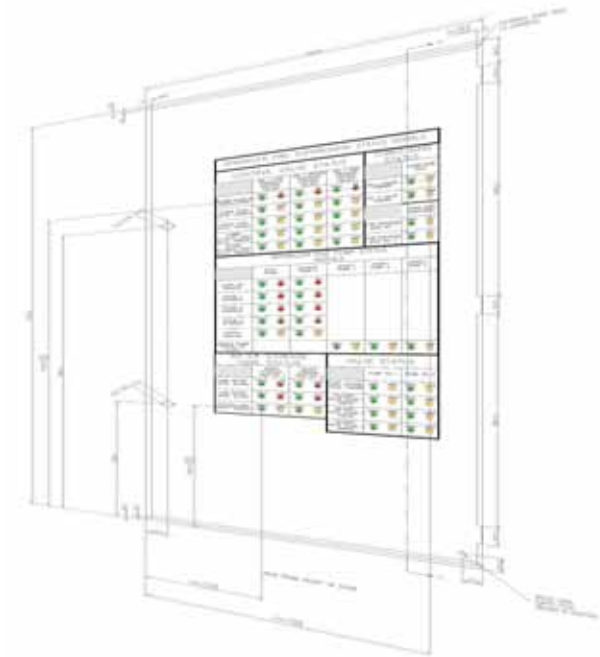
Compatibility

The Mxp-045 is compatible with all Mx-4000 control panels from software revision 019-04 using the Ad-Net peer-to-peer network. The Mxp-045 is programmable using the Pc-NeT-03 Mx Configuration tool from revision 4.19 onwards.

Custom Products

Design and Manufacturing
Services for Custom Products

*“Metal finishing,
user-interfaces, and
electronics are all
components
frequently tailor-
made to client
requirements.”*



The unique ability to understand our customer’s applications means that Advanced frequently deliver highly customised solutions that are designed specifically to meet the needs of its clients.

Metal finishing, user-interfaces, and electronics are all components frequently tailor-made to client requirements. This allows the customer to play a major role in specifying exactly how the final product should look and feel.



Bespoke Solutions Special Assembly

Advanced Engineering Solutions

Advanced Electronics continue to offer a service and solution for your bespoke product requirements.

Our unique ability to understand the intricacies of our customer applications means that we frequently deliver highly customised solutions, which are designed specifically to meet the needs of our clients.

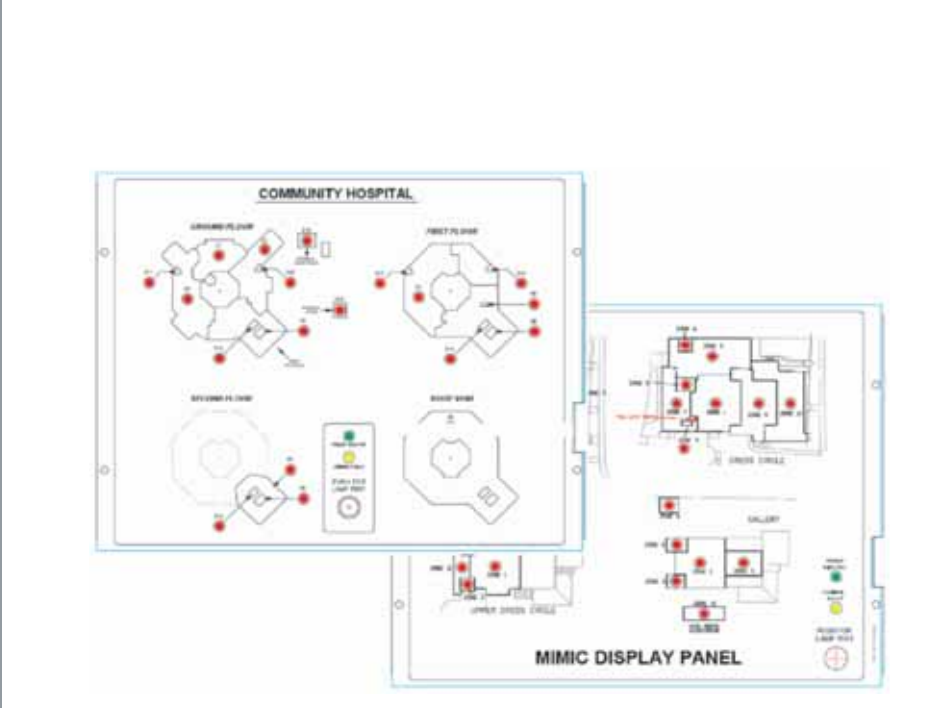
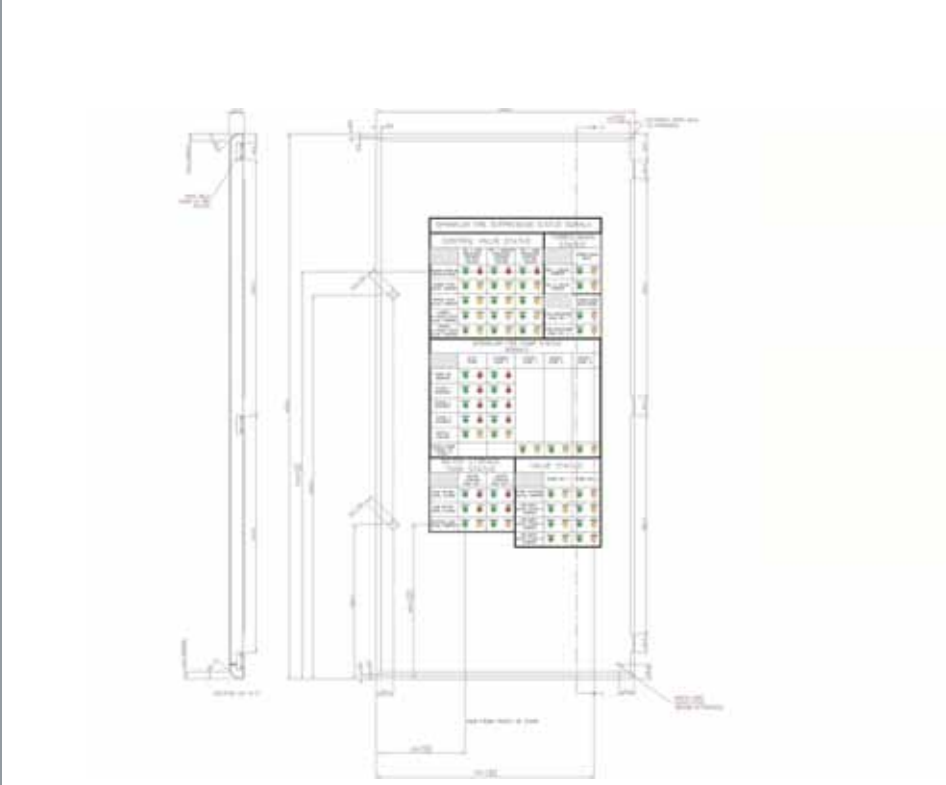
Metal finishing, user-interface, electronics, etc. are all components frequently tailor-made for each client. This translates into you, the customer, being able to play a major role in specifying exactly how a solution will look and feel, and result in a very close match between what we deliver and your expectation.

Available Facilities

- Expert Engineering Advice
- Mechanical Design
- Artwork & Printing Design
- Electrical Engineering
- Powder Coat
- Finishing
- Metal Finishing
- Silk Screen Printing
- Sublimation Printing



From Concept.....



to design.....

Features at a glance

Bespoke Engineering Solutions

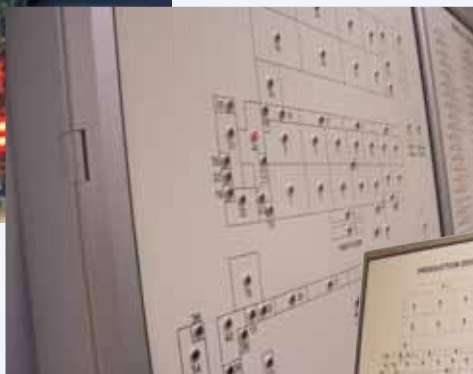
Expert Design Advice

Electrical/Electronic Engineering

Mechanical Engineering

Artwork and Printing Design

.....To Final Product



Applications

- Firemans Evacuation panels
- Mimic Control Panels
- Damper Control Panels
- LHD detection systems
- 19" Rack Mount panels
- Smoke Damper Control panels
- Sprinkler/Ventilation panels
- Analogue Addressable Interface Units

.....and many more



Power Supply Units

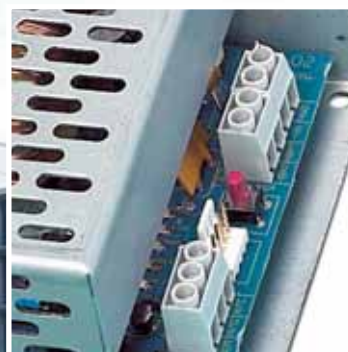
EN-54 approved switched-mode power supply units for fire applications

“Advanced Electronics’ power supply units are fully approved to EN54 part 4”



Advanced Electronics' family of high-efficiency switched-mode power supply units are fully approved to EN54 part 4 and provide a range of power outputs to suit most fire system applications.

They are available in 1.5A, 3A and 5A versions, either mounted in attractive enclosures with power/fault indication or as standalone caged units for other applications.



EN-54 'Approved'

Boxed Power Supplies

Advanced Power Supplies

The Advanced 1.5A, 3.0A and 5.0A Power Supply Units can be used for any fire alarm system which specifies EN54-4 Power Supply Equipment.

Suited for almost any application, the power supply unit/battery charger has been developed using the latest surface mount technology to provide a high efficiency switch mode power supply.

The power supply units are available in fully enclosed construction providing power and fault indication or alternatively in caged versions for mounting into existing enclosures of various sizes to suit different battery capacities.

Key Features

High efficiency switched mode power supplies
Compact 1.5A, 3.0A and 5.0A versions
Approved EN54-4
Boxed or Un-boxed
Power and Fault Indication
3 Year Warranty as Standard

Applications / Limitations

For any fire alarm system which specifies EN54-4 power supplies (e.g. BS5839 code of practice).

Compatibility

These power supply units can be used in any fire alarm installation requiring a 24Volt supply for operation.



BS EN 54-4: 1998 +A2 PSE
KM 6965



0086 -CPD -536905

Features

- A range of power supply equipment with power output options to suit most applications.
- Universal AC Input on the 3.0A and 5.0A versions
- PSE and charger or PSE only options on the 3.0A and 5.0A versions.
- A Serial Link option is provided on the 3.0A and 5.0A versions. Allows reporting of PSE status and voltages / current measurements to compatible control panel / modules.

Key Features

High Efficiency Switched Mode Power Supplies

EN54 Part 4 'Approved'

Boxed or Un-boxed

3 Year Warranty as standard

Specification

Approvals	All Power Supply Units are approved with the requirements of BS EN54-4 1998, EN55022 class B emissions limits & EN60950: 2000 safety standards.
Input Supply	1.5A PSE:220-240V AC, 50/60Hz, Fuse T3.15H250 3.0A/5.0A PSE:120-230V AC, 50/60Hz,Fuse T3.15H250
Output Voltage	Max 28.5V DC, Min 18.5V DC at minimum battery voltage of 19V with mains disconnected
Charger voltage	27.4V DC nominal at 20°C temperature compensated over the range -5°C to +45°C
Output Current	1.5A PSE: 1.0A continuous load, 0.5A battery charge 3.0A PSE: 2.0A continuous load, 1.0A battery charge [3.0A to load if configured for PSE only] 5.0A PSE: 3.0A continuous load, 2.0A battery charge [5.0A to load if configured for PSE only]
Dimensions Boxed (H x W x D)	7Ahr 320 x 345 x 88mm 18Ahr 425 x 94 x 125mm 38Ahr 425 x 94 x 190mm
Environment	Indoor, Dry
Fault Output	Volt-free change-over contacts rated 1A @ 30V dc
On Board Indication	Mains Fail, Charger Fail, Battery Open Circuit, Battery low & Heartbeat

Order Codes

Mxp-049: 1.5A PSE in 7Ah enclosure

Mxp-050-001: 3.0A PSE in 7Ah enclosure

Mxp-050-002: 3.0A PSE in 17Ah enclosure

Mxp-051: 5.0A PSE in 17Ah enclosure

Mxp-051/D: 5.0A PSE in 38Ah enclosure

EN-54 'Approved'

Caged Power Supplies



Advanced Power Supplies

The Advanced 1.5A, 3.0A and 5.0A Power Supply Units can be used for any fire alarm system which specifies EN54-4 Power Supply Equipment.

Suited for almost any application, the power supply unit/battery charger has been developed using the latest surface mount technology to provide a high efficiency switch mode power supply.

The power supply units are available in fully enclosed construction providing power and fault indication, or alternatively in caged versions for mounting into existing enclosures of various sizes to suit different battery capacities.

Key Features

- High efficiency switched mode power supplies
- Compact 1.5A, 3.0A and 5.0A versions
- Approved EN54-4
- Boxed or Un-boxed
- Power and Fault Indication
- 3 Year Warranty as Standard

Applications / Limitations

For any fire alarm system which specifies EN54-4 power supplies (e.g. BS5839 code of practice).

Compatibility

These power supply units can be used in any fire alarm installation requiring a 24Volt supply for operation.



BS EN 54-4: 1998 +A2 PSE
KM 6965



0086-CPD-536905

Features

- A range of power supply equipment with power output options to suit most applications.
- Universal AC Input on the 3.0A and 5.0A versions.
- PSE and charger or PSE only options on the 3.0A and 5.0A versions.
- A Serial Link option is provided on the 3.0A and 5.0A versions. Allows reporting of PSE status and voltages / current measurements to compatible control panel / modules.

Key Features

High Efficiency Switched Mode Power Supplies

EN54 Part 4 'Approved'

Boxed or Unboxed

3 Year Warranty as standard

Specification

Approvals	All Power Supply Units are approved with the requirements of BS EN54-4 1998, EN55022 class B emissions limits & EN60950: 2000 safety standards.
Input Supply	1.5A PSE:220-240V AC, 50/60Hz, Fuse T3.15H250 3.0A/5.0A PSE:120-230V AC, 50/60Hz,Fuse T3.15H250
Output Voltage	Max 28.5V DC, Min 18.5V DC at minimum battery voltage of 19V with mains disconnected
Charger voltage	27.4V DC nominal at 20°C temperature compensated over the range -5°C to +45°C
Output Current	1.5A PSE: 1.0A continuous load, 0.5A battery charge 3.0A PSE: 2.0A continuous load, 1.0A battery charge [3.0A to load if configured for PSE only] 5.0A PSE: 3.0A continuous load, 2.0A battery charge [5.0A to load if configured for PSE only]
Dimensions Caged (H x W x D)	1.5A 105 x 94 x38mm 250g 3A 184 x 94 x 58mm 690g 5A 105 x 94 x 58mm 690g
Environment	Indoor, Dry
Fault Output	Volt-free change-over contacts rated 1A @ 30V dc
On Board Indication	Mains Fail, Charger Fail, Battery Open Circuit, Battery low & Heartbeat

Order Codes

Mxs-049: 1.5A Caged Unit Only

Mxs-050: 3.0A Caged Unit Only

Mxs-051: 5.0A Caged Unit Only

LifeLine

DDA-Compliant Life Safety
Products for the
Hearing Impaired

*“LifeLine products
ensure that the
hearing impaired are
fully informed during
a building fire or
evacuation”*



LifeLine is a range of DDA-compliant fire safety products for the deaf and hearing impaired. The range includes control panels, hand-held vibrating pagers and bed-side alarms that ensure that the hearing impaired are fully informed during a building fire or evacuation.



LL-0023-035/200

Unicom TX Control Panel Radio Paging System

Description

Fire Alarm radio paging system to provide equal access to emergency alarms for the deaf and hearing impaired in line with current Disability Discrimination Act (DDA), Regulatory Reform Act (RRA) and the recent Disability Equality Duty (DED).

The LifeLine UniCOM is designed to comply with recommendations as detailed in BS5839-1:2002, providing a single panel interface for providing the deaf and hearing impaired to activation of the fire alarm.

Permanently linked to buildings fire control panel, the system simply sends out pre-defined alarm messages upon activation of the alarm to vibrating pager units carried by individuals on site within the transmission area. The messages will be transmitted every 5-8 seconds until the main fire panel is reset.

LifeLine systems should not be confused with a standard commercial paging system. Our systems are compliant to BS5839-1:2002 and have been designed to form an integral part of your organisation's main fire alarm system so that the needs of deaf and hearing-impaired individuals are included in your fire/health and safety strategy.

Transmitter Coverage

Advanced Electronics can provide total building coverage by LifeLine transmitters. The power of radio transmitters can be adjusted to ensure full coverage of a building with minimal overlap outside its parameters with any adjoining buildings. Due to the nature of radio waves it is impossible to guarantee that the transmissions can be kept to the exact shape of a building, but LifeLine solutions are designed to ensure any RF overlap is kept to the bare minimum.

Dependant on the size of the area required for coverage, Advanced Electronics have a range of low and high powered transmitters to ensure the most effective solution is adopted for your site.



Features

- 'Open managed' system architecture
- Mains powered with maintained battery back up (UPS)
- Continued and automatic monitoring & self testing
- System fault/failure notification via monitored link
- Key-locked Engineering & Test functions
- Two channels of fire panel interfacing
- Programmable messages for each channel
- Backlit LCD Screen continually reports system status
- 6 front panel LED indicators
- Operates on a licensed frequency
- Continued alarm messages every 5-8 seconds until alarm is reset
- Modular system for future upgrade
- Unlimited number of users/pagers
- Compatible with LifeLine SleepCOM

Specification

Frequency	UHF 459.150MHz
Size H x W x D	230mm x 255mm x 80mm
Weight	6Kg
Case	Aluminium IP40, screw fix front Light Grey RAL 7035
Display	Anodised Aluminium with blue led

LL-0023-035/200

Unicom TX Control Panel

Fire Alerts

The UniCOM is pre-programmed with four standard alerting messages:

- 1) FIRE EVACUATE <Building Name>
- 2) TEST FIRE <Building Name>
- 3) FAULT LIFELINE <Building Name>
- 4) ENGINEERING*

* The engineering message is for the maintenance of the system and is only transmitted to specific engineering pagers carried by Advanced Electronics personnel, alarm engineers, fire officers etc.

Power Supply

LifeLine units require an un-switched mains fused spur to provide the required mains feed to the units.

Fire Panel Interface

The UniCOM requires a set of volt-free, normally open relay contacts to interface with the fire panel. The panel will usually be a simple analogue unit, operating a 'one out all out' evacuation policy.

When the main fire alarm is activated, the open relay contacts close, alerting the LifeLine transmitter to the activation and in turn alerts the vibrating pager(s) and any dedicated ancillary equipment such as SleepCOM. LifeLine units simply mirror the information from your main fire alarm. Messages continue to be transmitted every 5-8 seconds until the main panel is reset, the contacts are re-opened and continue to be monitored by the LifeLine unit.

UHF Radio Technology

Lifeline systems operate using UHF technology as opposed to VHF technology. UHF has increased propagation and penetration of buildings to enable full building coverage. This proves to be very beneficial in cases where the large size and construction of some premises is a factor. Another advantage of UHF operation is that there is less chance of interference because of more available frequency spectrum. Interference can be caused due to spurious outputs from radio frequency equipment operation but is by far less a problem at UHF frequencies as there are substantially less transmitters operating at frequencies likely to cause these problems.

OfCOM Licencing

In order to prevent radio paging systems in the UK from interference, systems must operate on an approved radio frequency issued by Ofcom. Ofcom is the independent regulator and competition authority for the UK communications industries. Ofcom licencing must be maintained at all times to comply with the given communication regulations. Advanced Electronics applies for and delivers this licence to the end user as part of the system purchase

Order Codes

LL-0023-035: UniCOM 35W TX Control Panel

LL-0023-200: UniCOM 2W TX Control Panel (Extended Coverage)

LL-PG

PalmCOM Vibrating Pager

Description

A robust, standard 2 line alphanumeric pager that is simple and easy to operate. The hand held, battery operated pager is specifically programmed to work in conjunction with the LifeLine UniCOM system in order to meet British Standard requirements.

When the LifeLine transmitter is activated a message is sent to the vibrating pager carried by an individual. An alarm message will continue to vibrate and alert the user every 5-8 seconds until the main panel alarm is reset. If it is a general communication text message the message need only be accepted once by the user.

The pager displays all fire alert messages communicated from the transmitter(s) and delivered as priority over any standard messaging at the time of alert.

Main Features

- Fire alerts over-ride standard messaging
- Message alerts cannot be accepted in an alarm situation, the unit will continue to vibrate until the main fire panel is reset
- The vibrate function can not be switched off in the menu as with most standard pagers
- No on/off button so the user is unable to manually turn off the alerter
- Strong vibration alert

The number of pagers you can use with your LifeLine unit is unlimited. Each pager is programmed with its own identity.



Specification

Frequency	459MHZ Range
Height	48mm (excl case/belt clip)
Width	56mm
Depth	18mm
Weight	60g (incl. battery)
Case	Robust translucent black plastic
Display	White Backlight 80 Digit Text
Battery	1 x Standard AAA Alkaline
Alert	Tone & Vibrate

Order Codes

LL-PG: PalmCOM Vibrating Pager Unit

LL-SC

SleepCOM Bedside Unit & Vibrating Pillow Pad

Description

Stand-alone bedside unit linked to a vibrating pillow pad to waken an individual from their sleep during an alarm situation.

If you have sites with residential blocks or visitors and guests that are resident on your premises you must ensure that a deaf or hearing impaired individual will still be alerted to the activation of an alarm whilst they are sleeping.

The SleepCOM unit works in conjunction with the LifeLine UniCOM transmitter. It is fitted with an RF receiver that is triggered and maintained by the main LifeLine UniCOM unit. When the fire alarm is activated the LifeLine system transmits a signal to activate the SleepCOM unit, which in turn triggers the vibrating pillow pad to alert the individual(s) sleeping.

The SleepCOM unit continues to vibrate until the main alarm is de-activated. There is no hard wiring involved so you have the flexibility of moving the unit to any room within the area/building covered by the LifeLine transmitter.

A low frequency strobe light illuminates to alert the individual if they are not yet in bed but may have taken off their personal pager to get changed.

The number of SleepCOM units working in conjunction with the UniCOM system is unlimited so whether you have one single room requirement for an individual, or you require a unit for every single room in a large accommodation block you can add or remove any number of pager or SleepCOM units at any time.

The SleepCOM unit operates completely independently of the LifeLine PalmCOM pager unit. This ensures that the unit is active at all times and is not reliant upon an individual having to manually place their unit correctly in the bedside cradle or simply having to remember to do so at the end of every night.



Features

- Maintained RF Link
- Mains Powered
- Self-contained Aerial
- Sealed lead battery back up
- LED indicators for mains, battery charging and input faults
- LED indicators for system active, battery fault, mains fault
- Can be transferred from room to room within the building/zone

Specification

Height	115mm
Width	205mm
Depth	240mm
Weight	2.8Kg Approx
Case	Off-white RDL 9002
	Brushed aluminium front & back plates
Power	230v AC
Indicators	Power, Fault, Battery Charging
Connections	Power supply, vibrating pillow pad

Order Codes

LL-SC: SleepCOM Bedside Unit & Vibrating Pillow Pad

VoCall

A range of compact and networked systems for Disable Refuge

“VoCall assists fire fighters in an emergency in high rise buildings or large sites where radio communication may not work”



VoCall is a fixed, secure, bi-directional, full-duplex voice communication system to assist fire fighters in an emergency in high rise buildings or large sites where radio communication may not work. VoCall covers the operation of both fire telephones and disable refuge systems.

The VoCall Emergency Voice Communication System (EVACS) is designed to comply fully with BS-5839 Part 9:2003 for use as a Fire Telephone system, Disabled Refuge Call system or as a combined system when both Fire Telephones and Disabled Refuge Points are required.

Using network communications combined with subscriber line telephone techniques, VoCall can provide a small and compact 5-line fire telephone and disabled refuge system or a large-scale fully networked solution providing up to seven master handsets and thirty two 8-line network exchange units.



VoCall Compact EVCS

Emergency Voice Communication System (EVCS)

Introduction

The VoCALL Emergency Voice Communication Systems (EVCS) is designed to comply fully with BS5839-Part 9:2003 for use as a Fire Telephone system, Disabled Refuge Call system or as a combined system when both Fire Telephones and Disabled Refuge points are required.

An EVCS is a fixed, secure, bi-directional, full duplex voice communication system to assist fire fighters in an emergency in high-rise buildings or large sites where radio communication may not work, and covers the operation of both fire telephones and disabled refuge systems. Where both systems are fitted to a building, BS 5839-9 specifies these should be a single system.

A VoCALL Compact EVCS comprises of the master handset and up -to five outstations (type A, type B or jack points) as required.

VoCALL Compact is ideal for small public buildings which are required to install an EVCS, but which have only 2 or three locations, leaving room for expansion.



System Features

- Monitored Handset
- Fully monitored supply and charger
- Up-to five outstations per system
- 5 line keys, one fault accept
- Fifteen Status LED's
- Full Duplex System
- No Programming required
- Wall mount case
- BS 5839-9 2003 complaint

VoCALL

Compact EVCS

Emergency Voice Communication System

The VoCALL Compact is self contained and houses the battery charger and power supply, and can be surface or semi-flush mounted as standard.

The case is made from powder coated Zintec and is fitted with 20mm cable knockouts for all cables needed, and also provides space for the system backup 12V SLA battery.

The unit is processor controlled, but requires no programming on site, the panel is fitted with end of lines which are disgarded when an outstation is connected.



Specification

Power Supply & Charger

AC Input	230VAC $\pm 10\%$ 50/60 Hz
Internal power supply	14VDC
Supply & Battery	Monitored Open, Short, Fuses
Protection	Deep discharge, Short, Thermal
Temperature Compensation	Yes
Battery size and type	1 x 12V 4.2 Ahr
Mains fuse / Battery fuse	240V 2A HRC / 1A PTC
Max Charge current	250mA
Inputs - Number of lines	5
Remote enable	Short to use
End of line	10K Ω
Outputs - Number	2, Fault & In Use
Type	Volt Free relay
Contact	30V DC 1A
Controls - Buttons	6, Five lines 1 Fault acknowledgment
Zone LED's, Fault LED's	5 Status, 5 Fault Status
Outstation Cables-Type	Enhanced
Cores / Distance	2 core 1mm or 1.5mm / 500m
Dimensions (H x W x D) / Weight	300 x 350 x 120mm / 6.5kg

VoCall

Emergency Voice Communication System (EVCS)

Introduction

The VoCALL Emergency Voice Communication Systems (EVCS) is designed to comply fully with BS5839-Part 9:2003 for use as a Fire Telephone system, Disabled Refuge Call system or as a combined system when both Fire Telephones and Disabled Refuge points are required.

An EVCS is a fixed, secure, bi-directional, full duplex voice communication system to assist fire fighters in an emergency in high-rise buildings or large sites where radio communication may not work, and covers the operation of both fire telephones and disabled refuge systems. Where both systems are fitted to a building, Bs5839 pt9 specifies these should be a single system.

A VoCALL EVCS comprises three functional blocks, the master handset (VCM), the eight-line exchanges (VCX-8) and outstations (type A, type B or jack points), with the quantities of these basic units being adjusted to suit the application.



System Features

- Full Duplex System
- Up to Eight Masters Per System
- Up to 256 Lines (32 VCX-8 Exchanges)
- Directory Dial Function
- Fully Monitored and Full System Event Log (Fault & Configuration)
- 16 Character Unique Name Per Line
- Dual Redundant Network
- Large High-Contrast Master Display (4 x 20 Character)
- Remote Powered Masters
- Monitored Battery Chargers
- Wall, Desk or Rack Mount
- BS 5839-9 9 2003 Compliant
- Full Status LEDs

Typical System Schematic

System Wiring

All cables on the EVCS must be Enhanced Rated to comply with BS 5839-9

Network cables can be a four pair data cable, two-off four-core 1mm soft-skin cable or four-off two-core MICC twist (see the specification section for more detail)

Phone lines are a single two-core 1mm CSA cable, soft-skin or MICC

Master Handset

The master handset controls all call operations on the system, addressing each line with a 16 character name for ease of use.

Outstations

Type A (handset) or Type B (hands free) can be freely mixed and matched as required, each line supports one phone and each line is uniquely addressed.

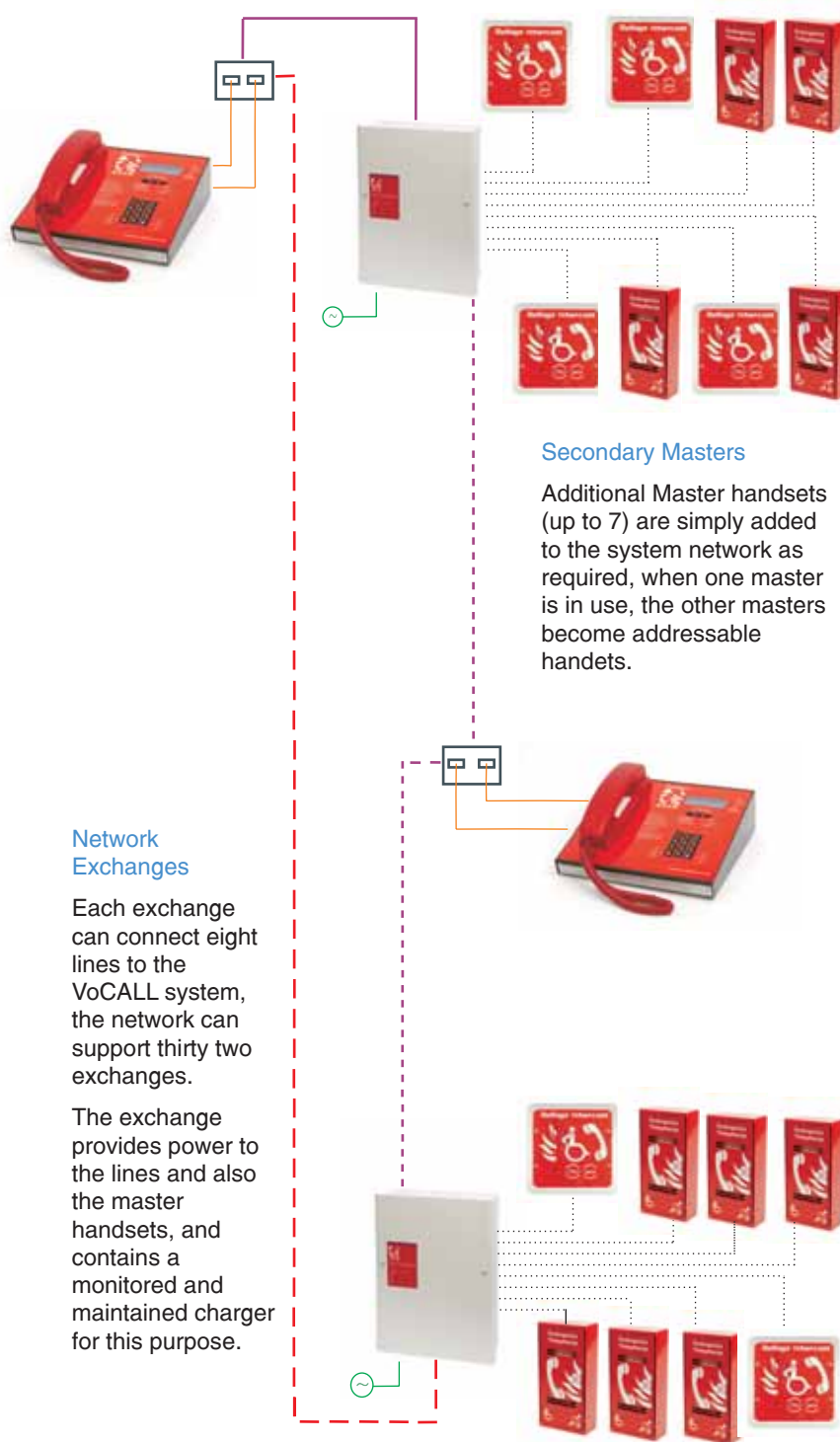
Secondary Masters

Additional Master handsets (up to 7) are simply added to the system network as required, when one master is in use, the other masters become addressable handsets.

Network Exchanges

Each exchange can connect eight lines to the VoCALL system, the network can support thirty two exchanges.

The exchange provides power to the lines and also the master handsets, and contains a monitored and maintained charger for this purpose.



VoCall

Emergency Voice Communication System (EVCS)

Outstations

When choosing the outstation type for use with an EVCS we recommend reading Section 11 of BS 5839-9:2003 which deals with outstation types, and states as follows:-

11.1.2.a Type A should be used for evacuation or fire fighting use, and type B unit should only be used where a type A is impractical.

11.1.2.b For disabled refuges type A or type B can be used, however in type B outstations can only be used where the background noise is below 40dBA (therefore there can be no sounder or voice alarm coverage in the area).



The VoCALL outstations are designed for use by multi-disability users, having high-contrast signage in line with RNIB guidelines and an induction loop coil (to BSEN60118-4) in the handsets on type A outstations.

We recommend type A handsets in all locations, otherwise you may have to consider acoustic hoods or two outstations in each location for compliance with the other associated standards and laws, including BS8300 and DDA (Disabilities Discrimination Act).

Specification

VCM - Master Handset

Height x Width x Depth	268mm x 275mm x 85mm Desk/Wall, 6u x 485mm x 125mm Rack
Weight	1490g
Power Supply	
Source/voltage/Current	Network Port x 2 / 11V to 18V DC / 88mA @ 12V
Network cables - Grade	Enhanced
Cable	1 off four pair (eg Draka 91-0245) or 2 off four core 1mm Soft Skin or 4 off 1 Pair MICC Twisted
Distance (per leg)	500M Soft Skin types, 300M MICC
Monitoring	
Fault LEDS, Status LEDS	4 off yellow, 4 off green
LCD	High contrast Blue/White, 4 x 20 Character
Keyboard / Navigation	12 Key Telephone Style / 3 Keys (down, Accept, up)
Standards Compliance	
EMC / Product	EN 55103-1, EN 55103-2 / BS 5839-9, BS 5588-8

VCX8 - Exchange

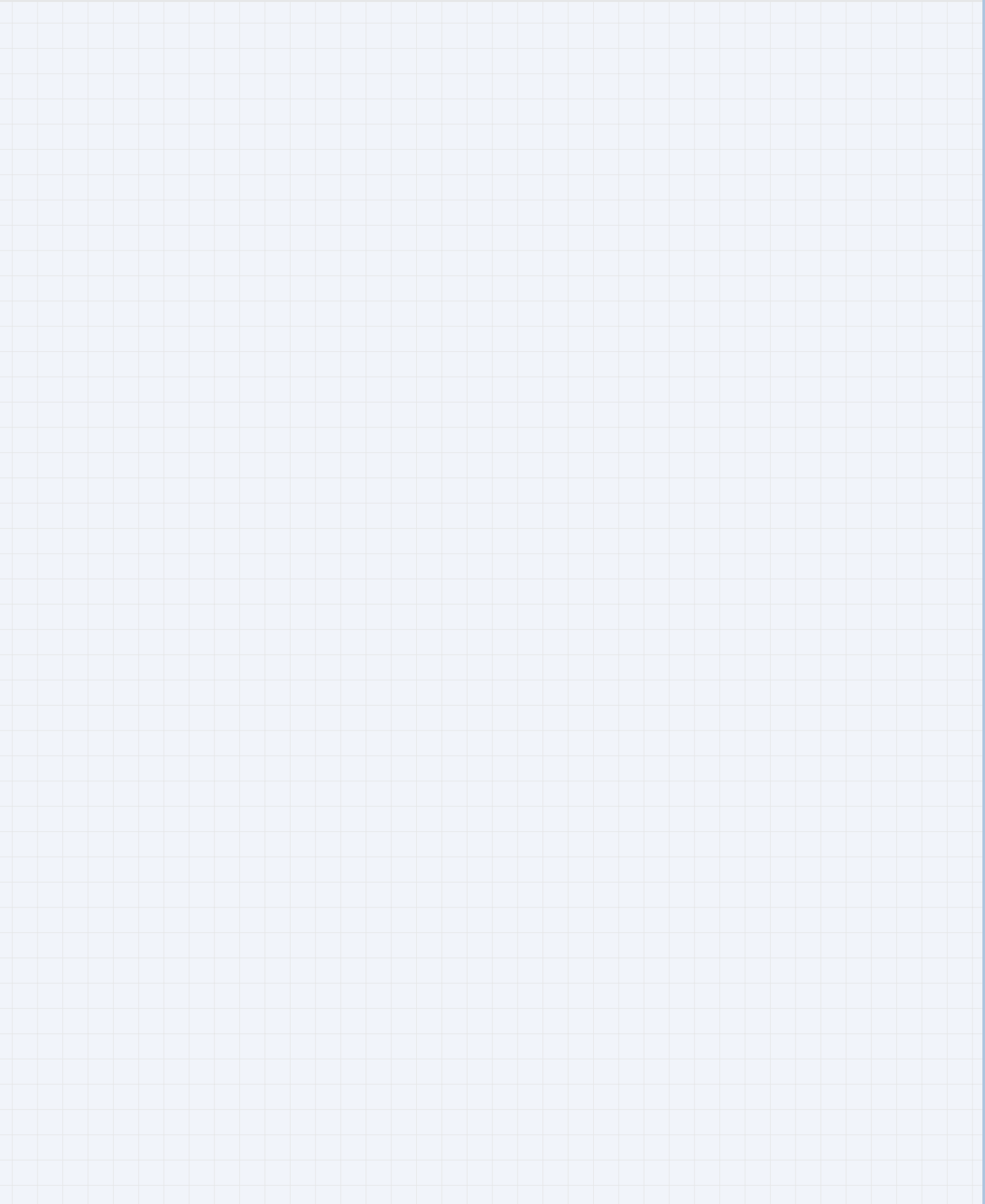
Height x Width x Depth	296mm x 210mm x 80mm
Weight	1600g
Power Supply	
Voltage/Current/Battery/Charger	230V AC $\pm 20\%$ / 11mA / 1x 12V SLA / 1A Monitored
Outstation cables - Grade	Enhanced
Cable	2 core 1mm CSA
Distance (per leg)	500M Soft Skin, 300M MICC
Monitoring	Open, Short & Earth
Fault LEDS, Status LEDS	10 off yellow, 2 off green
Settings	8 way DIP Switch
EMC / LVD / Product	EN 55103-1, EN 55103-2 / EN 61000-3-2, EN 61000-3-3, EN 60950 / BS 5839-9, BS 5588-8

Outstations

	VCFHS -Flush Type A Handset	VCSHP -Surface Type A Handset	VCSHF - Type B Handset
Type	Handset with Telecoil	Handset with Telecoil	Intercom with Braille
Door	Magnetic Push Catch	Magnetic Push Catch	None-Vandal Resistant Case
Height x Width x Depth	320 x 180 x 80mm Bezel 295 x 155 Cut-out	300 x 150 x 80mm	133 x 133 x 45mm
Weight	1400g	1600g	1105g
Material	Zintec Painted RAL3001	Zintec Painted RAL3001	Zintec Painted RAL3001
Cable	2 core 1mm CSA	2 core 1mm CSA	2 core 1mm CSA

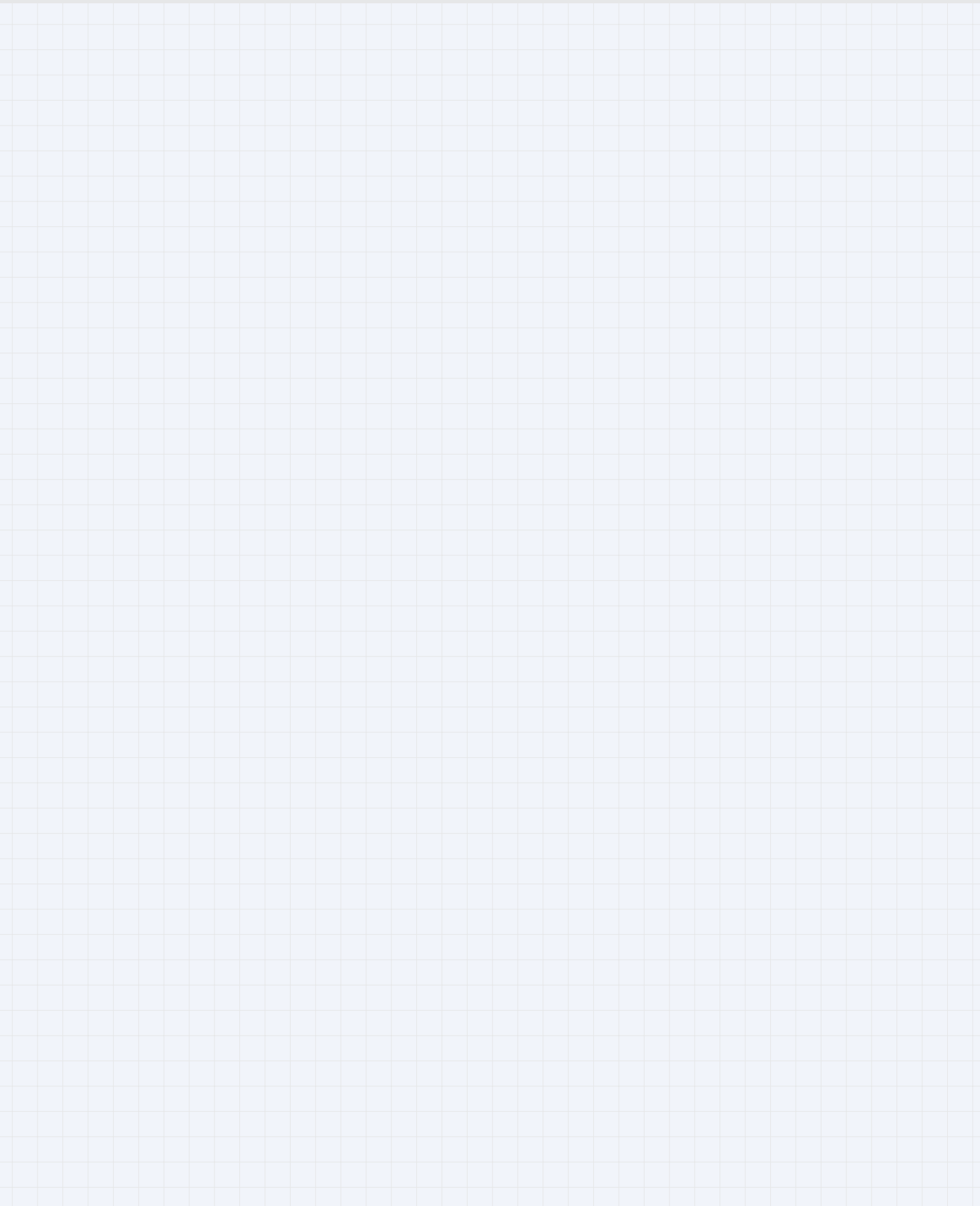
Notes





Notes





Affiliations

Company Memberships and Approvals



Industry Organisations

Advanced Electronics is a member of the following organisations:

Construction CPD Certification Service



Fire Industry Association



Industry Committee for Emergency Lighting



Lighting Industry Federation



National Fire Protection Association



Company Approvals

Advanced Electronics has the following company approvals:

LPCB – ISO 9001 Quality Management Systems

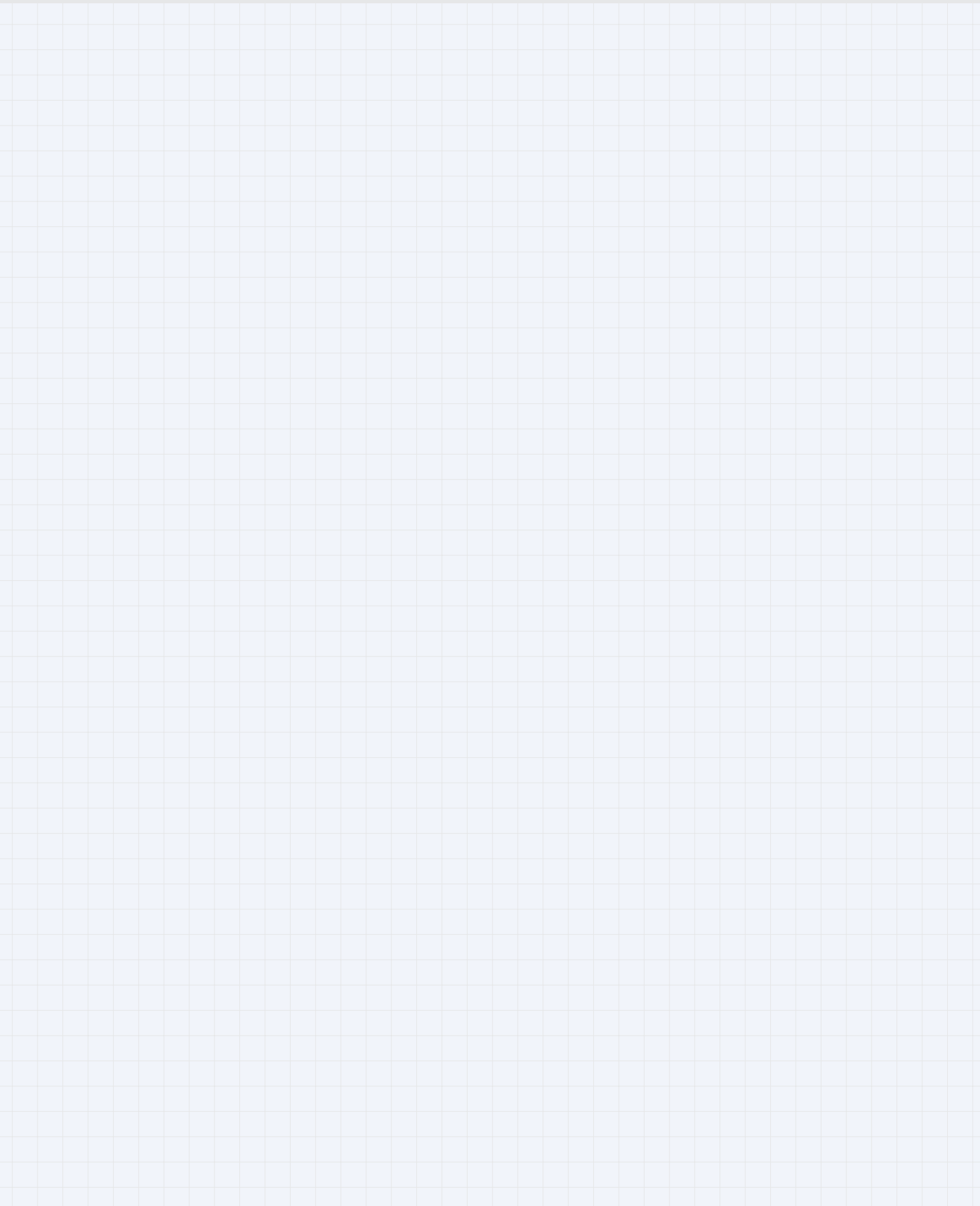


BSI – ISO 9001 Quality Management Systems



BSI – 14001 Environmental Management Systems

ISO 9001
ISO 14001



Affiliations

Product Approval and Partnerships



Product Approvals

Advanced Electronics has product approved by the following organisations:

VDS ‘Vertrauen durch Sicherheit’



BSI ‘British Standards Institute’



LPCB ‘Loss Prevention Certification board’



ETL ‘Edison Testing Laboratories-Intertek’



UL ‘Underwriters Laboratory’



SAI Global ‘Standards Australia’



DBI ‘Dansk Brand-org sikringsteknisk Inst., Denmark’



Fire Services Department ‘Hong Kong’



PSB ‘Singapore’



Protocol Partners

Advanced Electronics supports the following protocol:

Apollo Fire Detectors (XP95, Discovery & Xplorer)



Argus Security (Argus Vega)



Hochiki (ESP)



Nittan (Evolution)



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Information in this Catalogue

The information in this catalogue is accurate at the time of print (errors and omissions accepted), however due to Advanced's philosophy of constant product development we reserve the right to change specifications without prior notice. Please refer to the website www.advel.co.uk for current information.





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