

MxPro⁴

Single Loop Fire Alarm Control Panel - obsolete

The MxPro 4 comes fitted complete with an internal loop driver card (Apollo/Hochiki only) and 2 onboard sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flash-based microprocessor technology driven by an onboard 24V DC, 2 Amp high efficiency switched mode power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys make 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 dynamic 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.

An extensive suite of PC based, software programs have been developed to supplement the MxPro 4 series fire panels.



Features

- Full support of Apollo (Discovery & XP95) and 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.
- 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 onboard 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 full cross-panel reporting, control and cause-and-effect functionality

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 Evolution & Argus Vega
Number of fire zones	250 (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
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)	Optional external serial printer
Enclosure / colour	Steel IP30 / Light grey RAL7035
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
Metalwork options	Flushing bezel, battery box
Approvals	BS EN54-2:1998, BS EN 54-4:1998

Order Codes and Options

Mx-4100:	Single loop analogue addressable
Mxp-024(F):	20 zone LED card for Mx-4100
Mxp-003(F)*:	Standard network card
Mxp-009(F)*:	Fault Tolerant network card
Mxm-001:	Semi-flushing bezel for Mx-4100
(F)*:	Add - Fitted

MxPro⁴

1-2 Loop Fire Alarm Control Panel - obsolete

The MxPro 4 series is fully expandable from 1 to 2 loops complete with 2 onboard sounder circuits. The control panel consists of a simple to use LCD menu driven graphical interface, dual, flash based micro processor technology driven by a 4 Amp power supply and charger approved to EN54 parts 2 & 4.

Dedicated system navigation keys make this control panel user and installer friendly due to the uncomplicated, trouble free, commissioning and fault-finding.

Powerful cause and effect programming coupled with dynamic 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 onboard alphanumeric keypad or PC-Net Configuration tools.

An extensive suite of PC based, software programs have been developed to supplement the MxPro 4 series fire panels.



Features

- Fully expandable from 1 to 2 loops via common plug in loop driver boards.
- Full support of Apollo (Discovery & XP95) and Hochiki ESP protocols.
- Advanced graphical LCD user interfaces 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 onboard Real Time Clock. Optional onboard or remote printer.
- Installer friendly Auto-learn and Loop Detection facility for troublefree, 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.

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 Evolution & Argus Vega
Number of Fire Zones	1000 (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	8 x programmable
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.
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 external serial printer
Enclosure / Colour	Steel IP30 / Light grey RAL7035
Cable Entry	20mm knock-outs. 18 x top, 9 x top rear and 2 x bottom
Size H x W x D mm / Weight	Actual (without door) 475 x 450 x 115 / 10Kg (depth with door is 125)
Metalwork Options	flushing bezel, ancillary enclosure & battery box

Order Codes and Options

Mx-4200:	0 to 2 Loop Analogue Addressable - No loop cards)
Mx-4201:	Mx-4200 c/w 1 Loop Cards Fitted & Tested
Mx-4202:	Mx-4200 c/w 2 Loop Cards Fitted & Tested

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MxPro⁴

1-4 Loop Fire Alarm Control Panel - obsolete

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

Dedicated system navigation keys make 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 dynamic zoning make 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.

An extensive suite of PC based, software programs have been developed to supplement the MxPro 4 series Fire panels.



Features

- Fully expandable from 1 to 4 loops via common plug in loop driver boards.
- Advanced graphical LCD user interfaces 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.
- Graphical display configurable for virtually any language
- 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.
- Installer friendly Auto-learn and Loop Detection facility for troublefree, commissioning. Fully on-site programmable via on-board alphanumeric keypad or PC configuration tools.

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 (XP95 and Discovery), Hochiki ESP

Number of Fire Zones	1000 (200 per individual panel)
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	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 external serial printer
Enclosure / Colour	Steel IP30 / Light grey RAL7035
Cable Entry	20mm Knock-outs. 18 x top, 9 x top rear and 2 x bottom
Size H x W x D mm / Weight	Actual (without door) 475 x 450 x 115 / 10Kg (depth with door is 125)
Metalwork Options	Flushing bezel, ancillary enclosure & battery box
Approvals	BS EN54-2 & 4:1998

Order Codes and Options

Mx-4400:	0 to 4 Loop Analogue Addressable - No 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

MxPro⁴

Remote Terminal Fire Alarm Control Panel - obsolete

Based around two core products, the MxPro 4 Remote Display Terminal (RDT) and the fully functional MxPro 4 Remote Control Terminal (RCT), both utilise the same graphical LCD user interface that can be found on the MxPro 4 series fire panels and are based upon the same advanced, flash based, microprocessor technology.

All MxPro 4 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 a dedicated system and navigation keys for simple user control.
- Fully on-site programmable via onboard alphanumeric keypad or PC configuration tools.
- 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.
- 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.

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
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 / Light grey RAL7035
Size H x W x D mm	Enclosure: 218 x 300 x 44. Back box only (when recessing) 218 x 300 x 30

Order Codes and Options

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

Loop Driver Card - obsolete

The Advanced Loop Driver Card is designed for use with the MxPro 4 range of analogue addressable panels. It provides control and connection to detector loops.

The Loop Driver Card supports Apollo and Hochiki (Mxp-002) protocols.

Features

- Use with MxPro 4 analogue addressable panels
- Compatible with Apollo and Hochiki

Specification

Dimensions (W x L)	101.6 x 65.4 mm
Operating Voltage	18 - 32 V
Max current per loop - quiescent	400 mA
Max current per loop - in alarm	500 mA
Protocols	Apollo Discovery, XP95 / Hochiki ESP /

Order Codes and Options

Mxp-002:	Loop Driver Card (Apollo/Hochiki)
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The Ad-NeT network system allows all MxPro 4 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.

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 MxPro 4 control panel or remote terminal as required.

Simply adding and connecting a network card allows any MxPro 4 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. 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.

Features

- 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

Specification

Network Connections	IN: A/B SCN(Screen) OUT: A/B 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 form the panel motherboard)
Temperature range and Humidity	-5°C to 40C 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

Order Codes and Options

Mxp-003:	Standard Network Card
Mxp-009:	Fault Tolerant Network Card
Mxp-003F:	Standard Network Card fitted to an MxPro 4 control panel
Mxp-009F:	Fault Tolerant Network Card fitted to an MxPro 4 control panel

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.

50 Way Network I/O - obsolete

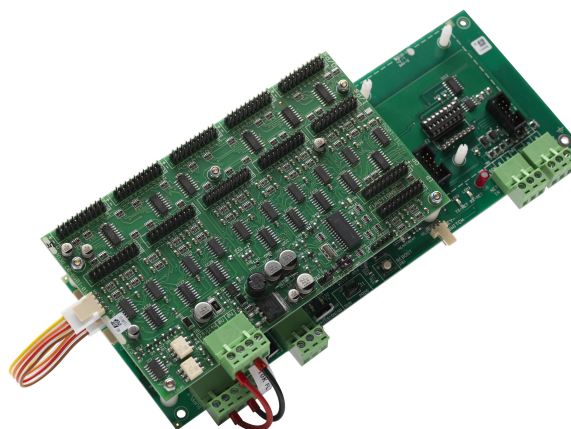
The 50 Way Network I/O provides a convenient and cost effective solution where multiple inputs and outputs are required. It is ideally suited for building control functions such as damper/fan control or sprinkler control where on/off/auto control and healthy/fault or open/closed status indication is required.

The inputs can be configured as toggle (switch) or momentary (push-button) types. The outputs are fully programmable using the powerful dynamic 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.

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 – 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.
- Supplementary graphical indication
- Zonal or fully programmable LED option
- Fully networkable
- 3-year warranty as standard

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 and Options

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 50 Way Network I/O is compatible with all MxPro 4 control panels from software revision 019-04 using the Ad-Net peer-to-peer network. The 50 Way Network I/O is programmable using the Pc-NeT-03 Mx configuration tool from revision 4.19 onwards.

Programmable 4-Way Relay Card - obsolete

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 dynamic 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.

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 MxPro 4 configuration program.

Fitting of the Programmable 4-Way Relay Card in a panel precludes fitting of other panel option cards. Requires installation of the Peripheral Bus Interface Card in the panel when using the MxPro 4 series.

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 supply.
- 4-way programmable relay card
- Easily configured via PC-NET-003
- 3 year warranty as standard

Specification

Applicable Standards	BS EN54-2:1998, BS EN54-4:1998
PCB Dimensions H x W x D mm	24VDC nominal (18- 28VDC), 22mA (quiescent) 75mA (outputs on)
Dimensions H x W x D mm	100 x 86 x16
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, 3Kg (excluding batteries)
Enclosure Dimensions H x W x D mm	320 x 345 x 88
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 and Options

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

Compatibility

The Programmable 4-Way Relay Card is compatible with all MxPro 4 control panels.

4-Way Programmable Sounder Card - obsolete

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 dynamic cause-and-effect rules, and all outputs are synchronised.

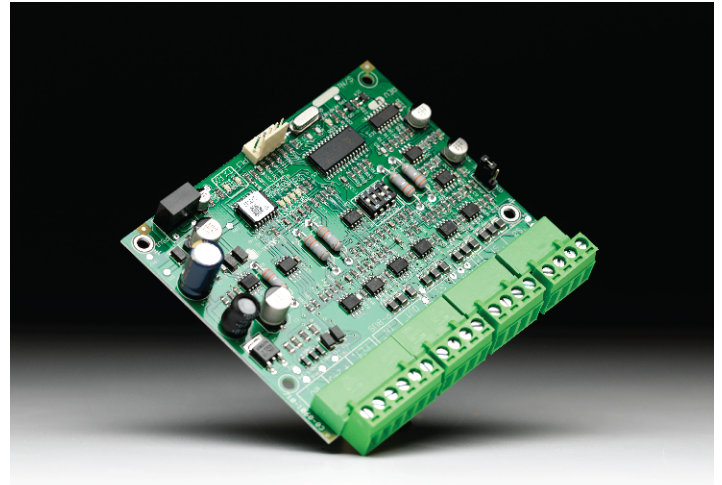
The unit is available as either a printed circuit card only or as a boxed version with integral 4A power supply.

Applications / Limitations

EN54-2 compliant sounder outputs.

Can be used with MxPro 4 2, 4 & 8 loop control panels programmed with version 020-02 software, or later, and fitted with base card hardware revision levels 10 (712-1022 MxPro 4 4 loop) and 09 (712-1022-002MxPro 4 2 loop) or later.

Requires installation of the Peripheral Bus Interface Adaptor card in the panel when using the MxPro 4 series.



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
- Easily configured via PC-NET-003
- 3-year warranty as standard

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 Dimensions H x W x D mm	PCB 110 x 86 x 18
PCB Weight	75 grams
Enclosure	Steel, IP30, RAL9002
Enclosure Dimensions H x W x D mm	320 x 345 x 88
Weight	5 kg (excluding batteries)
Knockouts 20mm	7 x top, 2 x bottom
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 and Options

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

General Routing Interface Card - obsolete

The General Routing Interface Card is an optional module to provide fire routing outputs compliant with BS EN54-2: 1998 Clauses 7.9 and 8.9 and BS5839-1: 2002

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.

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.
- Simple to install and configure
- Wide range compatibility

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 auxiliary supply output.
Panel loading, standby, 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 and Options

Mxp-032:	General Routing Interface
Mxp-032F:	General Routing Interface Fitted

Compatibility

Can be used with all MxPro 4 series multi-loop control panels.

Limitations

Cannot be fitted to the Mx-4100 / L / LG variant

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Mimic Relay Card - obsolete

The Peripheral Relay Card provides 10 30V DC, 1A programmable relay outputs.

The Peripheral Relay Card connects directly to any of the DIL connectors of either the Network Mimic 100 LED Output Card or the Multi way Input/Output Card unit 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 MxPro 4 dynamic zoning facilities.

Applications

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

Features

- Ten change-over contacts outputs at 30Vdc, 1A
- DIN rail or screw fixing options
- Separate isolate input (disables all outputs)
- Separate isolate indication output
- Fast response

Specification

Enclosure Dimensions H x W x D mm	PCB: 90 x 160 x 15
Enclosure Dimensions H x W x D mm	DIN rail: 90 x 160 x 40
DIN rail	Module mounts onto 32mm G Section and 35mm top hat (En50022) DIN rail
PCB Dimensions H x W x D mm	35 x 142 x 70
Operating Temperature	-5°C to 40°C
Relay Contacts	10 volt free change over contacts
Contact Rating	30V DC, 1A resistive
Power Supply (Card)	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 and Options

Mxp-052:	Mimic driven 10 way relay card
Mxp-052-DIN:	Mimic driven 10 way relay card in DIN rail carrier

Compatibility

Can be used with any of the network mimic units or the multi-way Input/Output card

Mimic Driven Relay Card - obsolete

The Mimic Driven Relay Card provides 10 30V DC, 1A programmable relay outputs.

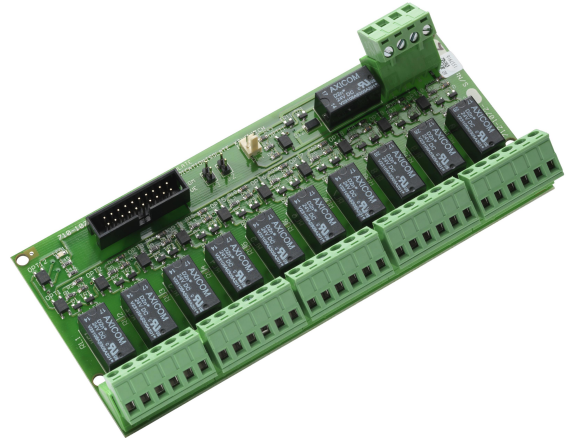
The Mimic Driven Relay Card connects directly to any of the DIL connectors of either the Network Mimic 100 LED Output Card or the 50-way Input/Output Card unit via the supplied ribbon cable.

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 MxPro 4 dynamic zoning facilities.

Applications

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



Features

- Ten change-over contact outputs rated at 30V DC, 1A.
- Up to 200 individual relay outputs fully programmable per mimic (excluding LEDs)
- Ten individually programmable relay outputs per unit
- DIN rail or screw fixing options
- Separate isolate input (disables all outputs)
- Separate isolate indication output
- Fast response

Specification

Enclosure Dimensions H x W x D mm	PCB: 90 x 160 x 15
Enclosure Dimensions H x W x D mm	DIN rail: 90 x 160 x 40
DIN rail	Module mounts onto 32mm G Section and 35mm top hat (En50022) DIN rail
PCB Dimensions H x W x D mm	35 x 142 x 70
Operating Temperature	-5°C to 40°C
Relay Contacts	10 volt free change over contacts
Contact Rating	30V DC, 1A resistive
Power Supply (Card)	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 and Options

Mxp-052:	10 Way Relay Card
Mxp-046-DIN:	10 Way Relay Card in DIN Rail Carrier

Compatibility

Can be used with any of the network mimic units.

Latch/Stretch Input Card - obsolete

The Latch/Stretch Input Card 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.

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 onboard 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.

Features

- Two modes of operation - Latched or Stretched
- Monitored or Non-monitored connectivity
- Loop powered
- Configurable for Advanced, Apollo, Hochiki and Nittan input circuits
- The module can be loop powered
- 3-year warranty as standard

Specification

Mxp-053:	Dual Input Latch/Stretch Module
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Compatibility

Any volt-free switched input circuit. End-of-line monitoring optional when used in conjunction with Advanced Electronics, Apollo, Hochiki or Nittan control equipment.

MxPro⁴

Key Switch Control - obsolete

The MxPro 4 control panel range supports direct installation of 1 key switch. If additional switches are required, then an additional key switch input card must be fitted (Mxp-015(F)*)

Applications

The MxPro 4 1 loop permits 1 key-switch to be fitted, but the MxPro 4 2 & 4 loop control panels allow a maximum of 8.

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
- Simple to install and configure

Order Codes and Options

Mxp-011(F)*:	Access Enable Key Switch
(F)*:	Add - Fitted

Compatibility

Can be used with all MxPro 4 series control panels.

Limitations

If an on-board printer is fitted to the MxPro 4 2 & 4 loop control panels then the maximum number of switches fitted is limited to 4. If the MxPro 4 3 position switch is fitted, then two programmable inputs must be available per switch.

The Advanced Mimic Controller provides a convenient and cost effective solution to any system that 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 a MxPro 4 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.

Applications / Limitations

The 100 Way Network Mimic Controller is a stand-alone unit with/without its own EN54-4 power supply and charger. Each output on the card is fully programmable using a PC programming suite.

Features

- 100 programmable LED driver outputs for energising and providing LED indication
- Expandable to 200 by installation of an expansion card
- Supports the connectivity of 10 Way Relay Output Card
- Large full-colour graphical indication for site maps, building layouts or simply zonal indication.
- Can be located remotely by simply adding the type of mimic interface onto the Ad-Net/Ad-Net+ Network
- Supplementary graphical indication
- Zonal or fully programmable LED option
- Fully networkable
- Full-colour mimic option
- 3-year warranty as standard

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
Output Drive Circuit	3.3V 4mA current limited (for direct LED connection)

Order Codes and Options

Mxp-020 (/FT):	100 Way Network Output Controller (Unboxed)
Mxp-020-Bx2 (/FT):	100 Way Network Output Controller (type 2) c/w PSU
Mxp-027(F):	100 Way Expansion Card (Fitted)
Mxp-052(F):	10 Way Relay Card (Fitted)
Mxp-026(F):	High Intensity LED (Fitted)
/FT:	Denotes fault tolerant version

Compatibility

The Advanced Mimic Controller is compatible with all MxPro 4 control panels from software revision 019-04 using the Ad-Net peer-to-peer or standard network platform. The Advanced Mimic Controller is programmable using the Pc-Net-03 Mx configuration tool revision 4.19 onwards.

The Zonal LED indicator cards are a range of panel mounted peripheral modules that can be added to the MxPro 4 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 dynamic zoning on networked or larger stand alone systems and can be used to provide individual zonal LED indication at one location.

20 zone units are available which are fitted to the front display plate on the MxPro 4 series control panel. The Mxp-013-100F incorporates 100 LED indicators and is compatible with all MxPro 4 series multiloop panels.

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 MxPro 4 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.

Features

- Up to 200 zones available
- 3 year warranty as standard
- Factory fitted or retro fit
- Dynamic zoning
- Cost effective against ancillary hardware

Order Codes and Options

Mxp-024F - Omit the 'F' for retro fit:	20 Zone LED Card and Label Fitted to a MxPro 4 1 loop panels
Mxp-025F - Omit the 'F' for retro fit:	20 Zone LED Card and Label Fitted to MxPro 4 2 & 4 loop panels
Mxp-013-100F - Omit the 'F' for retro fit:	100 Zone LED Card and Label Fitted to MxPro 4 2 & 4 loop panels

Compatibility

The Mxp-024F can be fitted to the MxPro 4 1 loop control panel.

The Mxp-013-100F can be fitted to an MxPro 4 2 or 4 loop control panel.

Damper Interface Card - obsolete

The Advanced Damper Interface is a loop driven device that utilises the Apollo protocol. The device is a fully monitored interface providing confirmation of the damper open and closed positions.

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

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 mm	300 x 200 x 150 - Steel IP66
Colour	RAL 7032 Light Grey
Weight	4Kg
PCB Dimensions H x W x D mm	35 x 142 x 70
Operating Temperature	-5°C to 40°C
Relative 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 and Options

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

Compatibility

Use with dedicated damper panels using Apollo protocol devices MxPro 4 series fire panels require version 019- 01 (or higher) program to use with Apollo protocol devices PC configuration program must be 4.10 (or higher) to support damper interface units.

Modem Interface - obsolete

The Modem Interface card is a peripheral interface for use with the MxPro 4 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

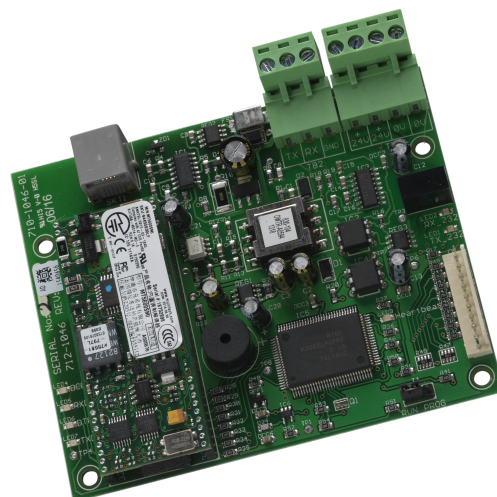
- DCDIND – Telephone connection established
- RXIND – Receipt of data by modem
- DTRIND – Always illuminated
- TXIND – Data transmission by modem

RS232 Activity LED's

- RX – Receipt of data from fire panel
- TX - Transmission of data to fire panel

Applications / Limitations

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



Features

- Remote dial-up access to the MxPro 4 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 H x W x D mm	Enclosure: 218 x 300 x 45

Order Codes and Options

Mxp-028(F)*:	Modem Card
Mxp-028-BX:	Modem Card (Boxed)
(F)*:	add - Fitted (Not Mx-4100, Mx-5101)

Compatibility

Internal fitting of the Peripheral Relay Card is applicable only to the MxPro 4 2, 4 & 8 loop control panels. The Modem Interface BX version can be used with the MxPro 4 1, 2, 4 & 8 loop control panels.

On-Board Printer - obsolete

Please note that this item is no longer available for sale.

The on-board thermal printer is an internal peripheral for use with the MxPro 4 multi-loop 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 inbuilt battery backup to enable continuous uninterrupted operation even during a mains fail situation.

Spare rolls of thermal paper can easily be replaced due to the mechanism's easy access, front-loading compartment.

On-demand option for printing

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

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 Zonal LED indicator cards 50 & 100 modules. The 20 Zone LED card cannot be used.

Features

- Fast instant response
- 3-year warranty as standard
- Fast and silent operation
- Thermal printer
- Cost effective against ancillary hardware

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 and Options

Mxp-012:	On-board Printer c/w Chassis Door and Lab
Mxp-012F:	On-board Printer Fitted to an Mx-4200 / Mx-4400 or Mx-4800
Mxs-008:	Spare paper roll for Mx-4000 series printer. Thermal, 58mm drum, 25M length.
Mxs-014:	Spare battery pack (Suitable for printers made 2005 onwards)

Compatibility

The on-board Printer can be fitted to the MxPro 4 2, 4 & 8 loop fire alarm control panels.

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

Automatic Operation for

- Fire
- Faults
- Alarms
- Tests

Pager Interface - obsolete

The Pager Interface is a programmable interface providing connectivity of third party paging systems to the MxPro 4 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.

Applications / Limitations

For use with pager systems compliant to ESPA 4.4.4 protocol. If a printer is also required, fit an internal printer assembly.

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
- ESPA 4.4.4 protocol
- Panel mounted or boxed version
- Easily configured via pager PC Software
- 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 H x W x D mm	Enclosure: 218 x 300 x 45
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 and Options

Mxp-547(F)*:	Pager Interface Card
Mxp-547-BX:	Pager Interface Card (Boxed)
(F)*:	Add F - Fitted (Except Mx-4100, Mx-5101)

Compatibility

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

For compatibility tested pager systems contact your area sales representative.

Sounder Booster Card - obsolete

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

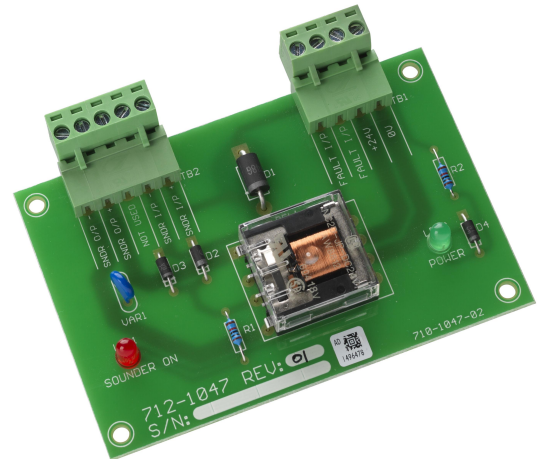
This boosted output is fully monitored for open and short circuits and will take an independent supply to provide up to 4A of sounder current to a single circuit.

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.

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

- Increased sounder capability up to 4A
- On-board indication
- PSU fault input contacts
- Cost effective against ancillary hardware
- 3 year warranty as standard

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.
On board indication	Input: 230V AC 50Hz Output: 5 Amp EN54 power supply. Nominal output voltage = 27.3V DC
Current Consumption (Derived from sounder Quiescent: 0mA Driving: 17mA circuit I/P)	
Dimensions H x W x D mm	PCB only: 70 x 105 x 18

Order Codes and Options

Mxs-025:	4A Sounder Booster Card (requires a minimum 4 Amp power supply and enclosure)
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Compatibility

The Sounder Booster Card is compatible with all MxPro 4 control panels.

Advanced, The Bridges, Balliol Business Park, Newcastle upon Tyne, NE12 8EW, UK **T:** +44 (0)345 894 7000 **E:** enquiries@advancedco.com
W: www.advancedco.com

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.

Sounder Splitter Card - obsolete

The Sounder Circuit Splitter is a peripheral unit for use with all MxPro 4 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.



Features

- 4 monitored outputs
- Up to 1 Amp per circuit
- Cost effective against ancillary hardware
- 3 year warranty as standard

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
Sounder Outputs	4 monitored sounder circuits (Total maximum load across all circuits = 1A)
Power Supply (Sounder Outputs)	Sounder output supply provided by the input (trigger) sounder circuit
Power Supply (Card)	Quiescent: 25mA Driving: 50mA
4A Splitter	
Sounder Outputs	4 x 1A rated monitored sounder circuits
Power Supply (Sounder Outputs)	Sounder output supply provided by an external 24Vdc 4A supply
Power Supply (Card)	Quiescent: 30mA Driving: 55mA

Order Codes and Options

Mxs-021:	4 Way Sounder Splitter Card
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Compatibility

The Sounder Splitter Card is compatible with all MxPro 4 control panels.

Limitations

The 4-way sounder splitter card can be supplied as a PCB only for mounting. 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.

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.

Caged Power Supplies - obsolete

The 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.

Applications / Limitations

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



Features

- High efficiency switched mode power supplies
- Boxed or unboxed
- Approved EN54-4
- Compact 1.5A, 3.0A and 5.0A versions
- Power and fault indication
- 3 year warranty

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 PSU: 1.0A continuous load, 0.5A battery charge 3.0A PSU: 2.0A continuous load, 1.0A battery charge [3.0A to load if configured for PSU only] 5.0A PSU: 3.0A continuous load, 2.0A battery charge [5.0A to load if configured for PSU only]
Dimensions Caged H x W x D mm	1.5A: 105 x 94 x38, 250g. 3A: 184 x 94 x 58, 690g. 5A: 105 x 94 x 58, 690g.
Enviroment	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 and Options

Mxs-049:	1.5A Caged Unit Only
Mxs-050:	3.0A Caged Unit Only

Compatibility

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

Power Supply Units - obsolete

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.

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.

Applications

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

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



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
- High efficiency switched mode power supplies
- Compact 1.5A, 3.0A and 5.0A versions

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 PSU: 1.0A continuous load, 0.5A battery charge 3.0A PSU: 2.0A continuous load, 1.0A battery charge [3.0A to load if configured for PSU only] 5.0A PSU: 3.0A continuous load, 2.0A battery charge [5.0A to load if configured for PSU only]
Dimensions Boxed H x W x D mm	7Ahr 320 x 345 x 88. 18Ahr 425 x 406 x 125. 38Ahr 425 x 406 x 190.
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 and Options

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

MxPro⁴

Pc-NeT-Programming Suite - obsolete

Pc-NeT-Programming Suite allows the configuration of the MxPro 4 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 MxPro 4 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
- Service Tool for predicting false alarms and providing customised end user reports

Order Codes and Options

Pc-Net-003:	MxPro 4 & 5 Series Configuration Software & Lead
Pc-Net-003-USB:	MxPro 4 & 5 Series Configuration Software & USB Upload/download Lead
Pc-Net-004 :	MxPro 4 & 5 Series Remote Dial-up Software
Pc-Net-005-L1 :	Mx Graphical Control Software (up to 3 Node Connection)
Pc-Net-005-L2:	Mx Graphical Control Software (up to 15 Node Connection)
Pc-Net-005-L3:	Mx Graphical Control Software (up to 200 Node Connection)

Compatibility

BMS/Graphics Interface will be required for interfacing the MxPro 4 panels to a graphical PC.

More Information

PC-Net-003 MX Pro configuration Software

PC-Net-003 is a powerful, windows based tool to allow programming of the advanced Cause and Effect options available on the Mx-Pro series fire alarm control panels.

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-005 Mx Graphics

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. Isolation status and analogue values are available by simply selecting icons and devices.

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

PC-NeT-007 Mx Logo Programmer

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

PC-NeT-015 Mx Service Tool

PC-Net-015 is a Windows based PC application, allowing the retrieval of analogue values, panel meter readings and event logs from the Mx control equipment in order to provide customised reports service and maintenance as well as the end user (meter reading and event logs not available on Mx-Pro 4)

MxPro⁴

PC Net Graphics - obsolete

The MxPro 4 Graphical Control Software is a highly configurable solution to customers requiring presentation of their sites via a Graphical method.

End users are presented with site maps, buttons, text, and images to easily monitor, navigate, and control the fire alarm equipment installed on-site.

Simple control buttons permit the user to Enable/Disable field devices, and can also provide a means for Silence/Reset functionality. Analogue values can also be obtained from all field devices via the menu selections.

The software also includes an extensive History Log to monitor all activations received and can be easily analysed using the extensive search methods available.

The software provides a cost effective solution for all types of installation and is suitable for use with single panel to multi-site applications.

Applications / Limitations:

The BMS/Graphics Interface will be required for interfacing all control panels to a PC.

There is limited functionality in sub address support.

Peripheral bus devices are not supported.



Features

- Standard 'Windows' based PC application
- Ad-NeT Network Compatible
- Windows providing Graphics, Text, or Event List
- User-friendly Configuration
- Event and Alarm History
- Zoom Graphic/Symbol Control

Specification

Processor	Intel Pentium 4 Processor, 1.8 GHz or higher (32 bit and 64 bit OS supported)
Recommended Operating Systems	Windows 7 Pro 32/64 bit
Memory	Memory 512 MB RAM (Minimum Recommended)
Disk Space	40Gb Hard Drive (Minimum Recommended)
Graphics	XGA Graphics Accelerator supporting a minimum 1024 x 768 resolution
Sound Card	Windows compatible sound card & speakers / On-board sounder required for event notification
Monitor	Minimum 17" and support a screen resolution of 1024 x 768
Parallel Port	Required if using a parallel port software dongle – Confirm at time order is placed for software
USB Port	Required if using a USB port software dongle – Confirm at time order is placed for software
Printer	Optional
Serial Port	1 x Serial port for communications with Graphics Interface. (Additional serial ports may be necessary if connectivity to other services are required)
CD ROM Drive	Required for software installation
Backup Device	Recommended
Warranty	A PC with on-site warranty support is recommended
Options	Touch-Screen Monitor (Minimum Specification suggested): 17" supporting a screen resolution of at least 1024 x 768

Any resolution above 1024 x 768 can be supported however, Graphical bitmaps must be created in the appropriate format for the resolution selected.

If monitors are to be used in a Portrait manner a horizontal screen resolution of at least 950 pixels must be available.

1 x Additional Serial / USB port for communications with Touch Screen Controller.

Order Codes and Options

Pc-Net-005-L1:	MxPro Graphical Control Software (Standard Version – Connectivity of 3 Node max)
Pc-Net-005-L2:	MxPro Graphical Control Software (Standard Version - Connectivity of 15 Nodes max)
Pc-Net-005-L2p:	MxPro Graphical Control Software (Premium Version - Connectivity of 15 Nodes max)*
Pc-Net-005-L3:	MxPro Graphical Control Software (Standard Version - Connectivity of 200 Nodes max)
Pc-Net-005-L3p:	MxPro Graphical Control Software (Premium Version - Connectivity of 200 Nodes max)*
PC-NeT-005-SWM:	Smart Watch Module
PC-NeT-005-SWM4R:	Smart Watch Module - 4 Inputs
PC-NeT-005-SCU:	Smart Cube Unit
*:	Package options can be found on the following page.

Compatibility

The Pc-Net Graphical Control Software is compatible with all MxPro 4 control equipment.

Package Options

The regular PC-NET-005 package in each level contains the basic software, which allows for connection to other systems over TCP. The premium software version (PC-NET-005L* P) also includes all of the available features and options are shown below.

Groups: This option allows PC Net terminals to communicate with one another using a TCP/IP network. Groups can connect masters to masters or masters to slaves. The Smart Cube also connects to a PC Net terminal using this option.

The Groups line is monitored and should a network connection go down, each PC net terminal will report there has been a connection error.

Slaves: This option is a 'No' control version of the PC net software. A slave will allow for 24 hour, real time monitoring from a master terminal with reporting and accept alarm capabilities but will not allow control of the panel and devices. A slave will gather its information from a master and cannot be connected to a panel or panel network.

Event Printer: This option gives users the ability to connect Line printers to the PC net terminal. With recent developments in the software, the capability to automatically print a graphic from a normal printer or laser printer in an alarm condition now comes as standard on all packages.

Service and History Mode: Normally an additional module, the SMART (Service Management and Reporting Tool) allows users to produce service reports which accurately show the total percentage of devices being tested on an annual basis. This module can be used by both the end user and Service provider as a way to demonstrate value adds and commitment to testing 100% of sites devices.

Auto Update Module: When more than one PC Net is connected in a group the standard practice when upgrading one is to take a backup and travel to each terminal to restore each one independently. The new auto update module allows a user to makes changes on one master PC Net and propagates the changes to any other master/slave connected via groups. This mimics a client/server application and drastically reduces upgrade times.

SMS Texting (requires additional hardware): When an event occurs a text message is sent to one or more mobile phones notifying a person/ persons of that event. With additional hardware (to be quoted separately) the PC Net can send event information via text message to multiple numbers as well as filtering messages for certain numbers only e.g. Fires go to Estates, Faults go to Engineers. SIM cards are to be supplied by the customer.

Email Module: The PC Net is now capable of sending emails when an event occurs. Each event can be sent to a multitude of addresses. This means for example that Fire events can be sent to person A, B and C whilst faults are sent to person X, Y and Z. Email can be configured to only be sent during certain times. Two types of email can be sent. Either a single alarm message or a generalised overview of alarms in a certain period of time.

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

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
- No proprietary software required

Specification

Supply Voltage input	18-28V DC
Supply Current	48mA/(FT: 86mA) at 24V DC
Enclosure H x W x D mm	IP30: 218 x 300 x 45
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 7
Ethernet Interface	10Base-T, RJ45

Order Codes and Options

MXP-554:	ipGateway (Card Only) Standard Network
MXP-554/FT:	ipGateway (Card Only) Fault Tolerant Network
MXP-554-BX:	ipGateway (Boxed) Standard Network
MXP-554-BX/FT:	ipGateway (Boxed) Fault Tolerant Network

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 – Most versions of Internet Explorer and Firefox.

Advanced Commander - obsolete

The Advanced Commander is a powerful IP based solution for customers requiring protocol translation between their Advanced Fire Control Equipment and a Building Management System (BMS).

The device can be used as a simple bridge between manufacturer's components providing seamless integration and delivering guaranteed performance.

The conversion protocols supported by the Advanced Commander are those generally found in use by the most common Building Management Systems on the market today and are currently 'BACNet' or 'Modbus'.

The Advanced Commander supports up to 640 Objects/Tags of information, which can be configured and passed between network components and delivered to the Building Managements Systems (BMS) using TCP/IP technology.

The Advanced Commander has powerful Windows® based software management suite built-in to provide engineers with the ability to write 'Cause & Effect strategy, check data logging, calendar, and timer functions.

TCP/IP connectivity permits the Advanced Commander to be located locally to the distributed network of Fire Control Panels, but at the same time caters for remote programming and Building Management System (BMS) access.



Features

- BacNet/Modbus Protocol Integration
- 640 Configurable Object/Tags
- Windows® Based Programming
- Powerful IP Controller
- Configurable on a Zone/Point basis per Object for Fire, Fault, Alarm & Isolation
- Engineer configurable over TCP/IP
- Supports a single Ad-Net network
- Small & Compact
- Low Voltage 12vDC - 24vDC
- Configurable using specialized Cause & Effect

Specification

Processor	Embedded AMD Low Power CPU
Memory	512 MB RAM
Disk Space	4Gb Industrial Solid State Hard Drive
Graphics	Not Applicable
Sound Card	Not Applicable
USB Port	Not Applicable
Ethernet	1 x Ethernet Port
Serial Port	2 x Serial port for communication with Ad-Net Networks
	We recommend ordering the UP-001 (RS232 Cable) for interconnection to Mxp-510-Bx.
PS/2 Socket	Not Applicable
Dimensions	45.0mm(H) x 126mm(W) x 82mm(D)
Power Requirements	1 x Terminal Socket for DC Power Input 12vDC - 24vDC +/- 10% (Not supplied)

Internal Battery	1 x Internal Lithium Battery (Size 1/2AA - 3.6v)
Operating Temperature	0 - 50 Deg C
Warranty	12 Month Warranty

Order Codes and Options

Mxp-642:	Commander - BacNet/ModBus (IP) Interface
Mxp-642C:	Commander - BacNet/ModBus (IP) Interface - Configured
23-PSU/250:	12V Regulated Power Supply Unit
UP-001:	RS232 9-Way to 3-Way cable
Mxp-510-Bx:	Standard Network BMS Interface Boxed
Mxp-510-Bx/FT:	Fault-Tolerant Network BMS Interface Boxed

Compatibility

The Advanced Commander is compatible with all MxPro5 control equipment, but requires the Mxp-510-Bx (BMS/Graphical Interface) to be installed on the Ad-Net network for connectivity to the Commander.

BMS / Graphics Interface - obsolete

The BMS / Graphics Interface interface allows BMS systems and graphical PCs to be integrated with the MxPro 4 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.

Features

- Sector based programming
- Each BMS interface is individually programmable with the available dynamic cause-and-effect rules.
- Standard & FT Network versions
- Easily configured via PC-NET-003
- 3 year warranty as standard

Specification

Supply Voltage Input	18-28V DC
Operating Temperature	-5°C to 50°C
Relative Humidity	95% non-condensing (maximum)
PCB H x W x D mm	88 x 242 x 18
PCB Weight	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
Enclosure H x W x D mm	218 X 300 X 45
Weight	2 Kg

Order Codes and Options

Mxp-510-BX :	Standard Network BMS Interface Boxed
Mxp-510-BX/FT :	Fault Tolerant Network BMS Interface Boxed
Mxp-510 :	Standard Network BMS Interface (Card only)
Mxp-510/FT:	Fault Tolerant network BMS interface (Card only)

Compatibility

Provides connection to various 3rd party graphics systems.

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

Smart Watch Module - obsolete

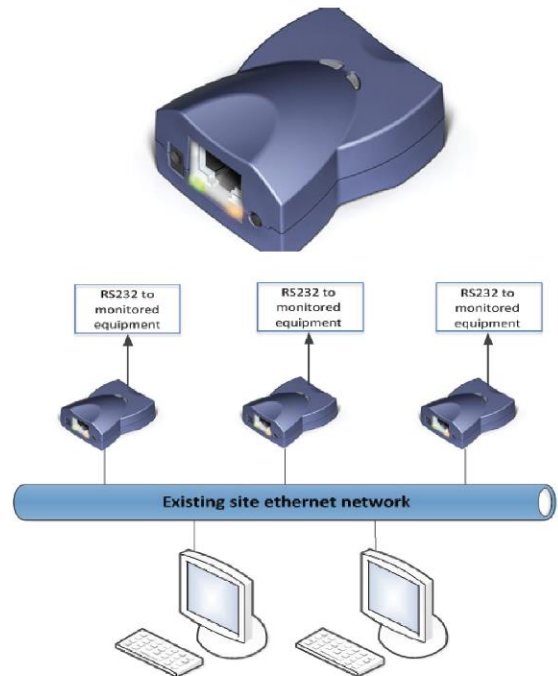
The Smart Watch Module (SWM) is a device used in conjunction with the PC-Net Graphical Software Suite offered by Advanced and is used for the control and diagnostics of remote site applications.

The Smart Watch Module (SWM) uses Static TCP/IP addressing over Local Area Network (LAN) or Wide Area Network (WAN) applications limiting the need for additional cabling and allowing remote sites to be monitored over a network from a centrally located Graphical Software Suite.

The Smart Watch Modules (SWM) clever use of TCP/IP technology provides the user with an ultimate level of control for all their Fire products worldwide.

The SWM is supplied in two variations, one for remote control and diagnostics of Addressable System Installations and the other for Conventional.

Please see parts list below for ordering purposes.



Features

- Small and Compact
- Remote Network Control & Diagnostics
- Power
- TCP/IP Communication via Static IP
- Direct connectivity to BMS/Graphical Interface via RS232
- Connect up to 255 Remote Sites
- Supports up to 15 remote panels per site
- Configured using Graphical Software

Specification

Processor	Intel Pentium 4 Processor, 1.8 GHz or higher (32 bit and 64 bit OS supported)
Recommended Operating Systems	Windows XP Professional SP3 / Windows 7 Pro
Memory	Memory 512 MB RAM (Minimum Recommended)
Disk Space	40Gb Hard Drive (Minimum Recommended)
Graphics	XGA Graphics Accelerator supporting a minimum 1024 x 768 resolution
Sound Card	Windows compatible sound card & speakers / On-board sounder required for event notification
Monitor	Minimum 17" and support a screen resolution of 1024 x 768
Parallel Port	Required if using a parallel port software dongle – Confirm at time order is placed for software

USB Port	Required if using a USB port software dongle – Confirm at time order is placed for software
Printer	Optional
Serial Port	1 x Serial port for communications with Graphics Interface. (Additional serial ports may be necessary if connectivity to other services are required)
CD ROM Drive	Required for software installation
Backup Device	Recommended
Warranty	A PC with on-site warranty support is recommended
Options	Touch-Screen Monitor (Minimum Specification suggested): 17" supporting a screen resolution of at least 1024 x 768 Any resolution above 1024 x 768 can be supported however, Graphical bitmaps must be created in the appropriate format for the resolution selected. If monitors are to be used in a Portrait manner a horizontal screen resolution of at least 950 pixels must be available. 1 x Additional Serial / USB port for communications with Touch Screen Controller.

Order Codes and Options

Pc-Net-005-SWM :	Smart Watch Module (1 - 3 Panels)
Pc-Net-005-SWM6 :	Smart Watch Module (4 - 6 Panels)
Pc-Net-005-SWM15 :	Smart Watch Module (7 - 15 Panels)
Pc-Net-005-SWM4R:	Smart Watch Module - 4 Inputs

Compatibility

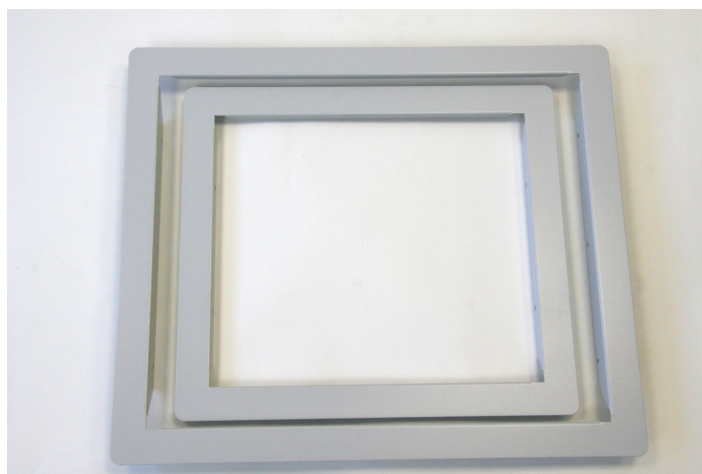
The Pc-Net Graphical Control Software is compatible with all MxPro 4 & MxPro 5 control equipment.

Semi-Flush Bezels - obsolete

Advanced bezels are colour matched with all our fire alarm control panels using RAL7035.

All bezels are provided complete with fitting kit for a quick and easy solution for semi-recessing the MxPro 4 series control panels.

Please note: when recessing, extra clearance (5mm all sides) must be factored to allow the bezel to be fitted to the backbox.



Features

- Semi flush fitting for all MxPro 4 panels
- Picture frame effect for ease of installation 30mm flange for control panels, 20mm for repeaters.

Specification

MXM-001	H320mm x W345mm
MXM-002	H475mm x W450mm
MXM-008	H220mm x W300mm
MXM-032	H950mm x W450mm
MXM-037	H340mm x W368mm

Order Codes and Options

MXM-001:	Semi-Flushing Bezel for Mx-4100
MXM-002:	Semi-Flushing Bezel for Mx-4200/Mx-4400
MXM-008:	Semi-Flushing Bezel for Mx-4010/Mx-4020

MxPro⁴

Panel Enclosures, Doors and Back Boxes - obsolete

Advanced metal fabrication provides Industrial electronic enclosures housing all our intelligent fire alarm and indicating equipment.

The MxPro 4 control equipment can be supplied in various sized enclosures to accommodate the internal hardware and battery requirements of the control equipment.

The options available can be found on this page and dimensions documented to assist the installer.

Applications

Ideal for any application where enclosures are required for first fix installations or matching enclosures required for housing third party equipment.

Features

- Colour matched to the MxPro range
- Ideal for first fix

Specification

Back Box Dimensions (MxPro 4):

MXM-018	H320 x W345 x D70	MXM-020	H475 x W450 x D175
MXM-018-002	H320 x W345 x D70	MXM-042	H950 x W450 x D175
MXM-038	H340 x W370 x D110	MXM-030	H300 x W220 x D45
MXM-017	H475 x W450 x D110	MXM-058	H300 x W220 x D55

Order Codes and Options

Mxm-018	Spare back box for Mx-4100	Mxm-049	Spare lid for Mx-4100
Mxm-018-002	Spare back box for Mx-4100 without transformer	Mxm-047	Spare door for Mx-4200/4400 fitted
Mxm-017	Spare back box for Mx-4200/Mx-4400	Mxm-047-001	Spare door (double aperture) for Mx-4200/Mx-4400
Mxm-030	Spare back box for Mx-4010/20	Mxm-031	Blanking plate for lower aperture on Mx-4200 / Mx4400
Mxm-028	Terminal enclosure - 1-4 loop panel	Mxm-045	Spare lid for Mx4010/4020
Mxm-040	Spare Mx-4200/Mx-4400 enclosure and door		

Compatibility

Not suitable for use with MxPro 5 series metalwork.

Advanced, The Bridges, Balliol Business Park, Newcastle upon Tyne, NE12 8EW, UK **T:** +44 (0)345 894 7000 **E:** enquiries@advancedco.com
W: www.advancedco.com

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.

Spares and Accessories - obsolete

A range of spares and accessories for the MxPro 4 series control panels and ancillaries.

Items indicated with * can be specified to be Nittan Evolution protocol (Add N) or Argus Vega protocol (add V).

Order Codes and Options

Mxs-001	Spare Mx-4100 single loop base card	Mxs-028	Spare peripheral Fault Tolerant network interface
Mxs-002*	Spare Mx-4200 1-2 loop panel base card	Mxs-029	Spare 10-way earthing block for Mx-42/44/4800
Mxs-003*	Spare Mx-4400 1-4 loop panel base card	Mxs-034	2-way pluggable lead for keyswitch input card
Mxs-004	Spare Mx-4000 Display card	Mxs-035	Spare rechargeable battery pack for Mxp-048
Mxs-005	Spare PSU for Mx-4400	Mxs-036	Spare rubber boot and belt kit for Mxp-048
Mxs-006	Spare PSU for Mx-4200	Mxs-037	Spare PSU and lead for Mxp-048
Mxs-008	Spare paper roll for Mxp-012 printer (10 pack)	Mxs-030	Non-illuminated push button + 450mm long 2-way cable
Mxs-009-050	Spare 50 zone LED card	Mxs-030-R	Illuminated (red) push button + 450mm long 2-way cable
Mxs-009-100	Spare 100 zone LED card	Mxs-030-G	Illuminated (green) push button + 450mm long 2-way cable
Mxs-010	BMS/Graphical interface card	Mxs-038-xxx	20-way ribbon cable (xxx = 320, 550, 650 mm)
Mxs-011	Spare panel door key (X2233)	Mxs-039-xxx	Cable, 2-way plug to plug (xxx = 320, 550, 650 mm)
Mxs-012	Spare access enable key (TOK001)	Mxs-049	Spare 24V 1.5A EN54-4 PSU & charger card
Mxs-013	Spare panel lock and key (X2233)	Mxs-050	Spare 24V 3A EN54-4 PSU & charger card
Mxs-021	4-way sounder splitter card - PCB only	Mxs-051	Spare 24V 5A EN54-4 PSU & charger card
Mxs-024	20 zone LED card - PCB only	Mxs-055	Spare key for Mxm-059 -001 Lexan door kit (alternative key)
Mxs-025	5A sounder booster card - PCB only	Misc-031	Spare transformer for Mx-4100
Mxs-027	Local 100 way mimic driver card	Mxs-014	Spare battery pack for Mxp-012 (2005+)