

1-4 Loop Analogue Addressable Control Panels (XP95 & Protocols) - EN54 Approved

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Key Features

- From 1-4 loops
- LPCB approved to EN54 parts 2 and 4
- Full Apollo compatibility
- Automatic recognition of Apollo outstations
- Extensive mode change options by day/night and special group allocation
- Windows-based, full upload/download PC software package
- 500mA output per loop with highly stable voltage platform, even under mains-failed conditions
- Fully networkable with other Excel Series and Saxon range panels, graphics package and **Integra** network repeaters
- Powerful processing and extensive panel and loop I/O capability
- User-friendly controls and a clear, unambiguous screen
- Membrane facia with tactile switches
- Complies with EMC and LVD Directives

1-4 Loop Analogue Addressable Control Panels (XP95 & Protocols) - EN54 Approved

Introduction

The Excel Series analogue addressable panels are a powerful yet user-friendly series of control panels. They are designed to a high standard with LPCB approval to EN54, parts 2 & 4. Each panel in this modular series has considerable processing ability but is easy to install, programme and operate. This is supported by comprehensive support documentation. Panels are housed in steel enclosures and are finished in hardwearing epoxy paint.

This panel is ideally suited to installations which require very complex sounder and control/shutdown functions. The panels are programmable to meet individual site requirements by means of a cause & effect matrix. This is downloaded from a PC, using the Cause & Effect Edit Programme. Text may be edited via a keyboard or downloaded from a PC.

The Excel Series has a 4 line x 20 character backlit LCD display, showing the first and most recent event. Other events may be reviewed using the More Messages facility. User controls are accessed by means of keyswitch-enabled membrane controls, with password protection for engineer purposes. Each panel has a high level of processing power and each loop has its own processor. The panel allows up to 126 addresses per loop. All addresses on a loop may be used for output functions, with 3 independently programmable output bits per address.

By using Apollo Excel Series detectors, the system may be configured to automatically switch between heat and smoke detection at selected times of day or week. Additional facilities are also provided for temporary switching between smoke and heat detection to suit short-term changes in environmental conditions.

Up to 248 user-definable panel inputs and relay/two-stage alarm outputs can be provided via expansions boards. Many useful testing and service functions are also provided. All events may be recorded on the optional printer and zonal indications are included as standard. There is a complete range of compatible accessories available to support the Excel Series panels to meet most customer requirements. The addition of a network card to the panel will allow monitoring, indication and control of the functions of a networked installation, allowing signals to be distributed around a large site.

Technical Specifications

Mains voltage	230V AC +10% -6%
Mains failed fault battery current	1L - 145mA 2L - 170mA 3L - 195mA 4L - 220mA
Mains failed alarm battery current	1L - 260mA 2L - 285mA 3L - 310mA 4L - 335mA
Max. battery charging current	1.5A
Alarm circuits	2 @ 1A per circuit
Auxiliary supply	20V-28V @ 500mA
Weight (excluding batteries)	15kg
Dimensions	480mm high x 410mm wide x 144mm deep

Part Numbers

2500/110	Excel Series 1 loop control panel
2500/111	Excel Series 2 loop control panel
2500/112	Excel Series 3 loop control panel
2500/113	Excel Series 4 loop control panel

Fireguard Analogue Addressable Control Panel

Arian

Arian is a powerful Analogue Addressable fire Alarm control system with networking capabilities that facilitate the configuration of complex wide area Fire detection systems.



1 to 3 Loops

Modular construction and distributed intelligence allow systems of up to 96 Loops to be constructed. With a high level of built in redundancy and emergency back up features the **Arian** is fully equipped to control the most complex installations.

Using its wide array of interfacing capabilities the **Arian** is ideally placed to provide an efficient and effective solution to the logistics of protecting large institutions. Universities, Airports, industrial complexes etc which may have many individual Fire Alarm systems but require central reporting and control can easily be accommodated by the advanced capabilities of the **Arian**

Arian is available as a standalone system of up to 12 Loops in a single cabinet and can be expanded to up to 96 Loops via a networked array of sub-panels which can be supplied in a blank

box version or combined with a repeater to allow remote display and control of the system. Networking is by a monitored redundant RS422/485, Fibre optic loop or TCP/IP network. The **Arian** networking capabilities are further enhanced by a wide range of programming options which provide the capability to



1 to 12 Loops

customise the system according to the needs of the customer. Flexible cause and effect programming of I/O devices and warning devices ensure that Fire or Fault warnings trigger the appropriate response.

An interactive Graphic representation of the system can be displayed on the users' computer via the Odyssey Graphics software (Optional). All the devices on the system can be displayed on a building plan showing their status in real time. In the event of Fire or fault the customer can control the system and access all the necessary information with a few mouse-clicks.

Automatic Device detection at start up reduces time spent at the commissioning stage. In Installation mode the Arian detects and recognises addressed and connected devices with the system being fully operational in less than two minutes. The default programming ensures that the system is ready to detect Fire / fault alerts from the moment that power is applied. Additional programming, to customise the system can be implemented via the onboard keypad, IR programmer, PS 2 Keyboard or with a laptop PC running the GFE Loader software.

Fireguard Analogue Addressable Control Panel

Key Features

- Fully expandable system from 1-96 Loops with distributed intelligence for added security.
- 125 device addresses per loop Apollo / Fireguard, 254 Hochiki Protocol
- Up to 96 Loop sounders with 32 individually programmable addresses per Loop Apollo/Fireguard protocol, 127 with Hochiki protocol.
- 2 Fire output changeover relays
- Open collector outputs for Fire, Fault and pre-alarm remote indication.
- 2 fully monitored sounder outputs on main panel and each sub panel.
- Repeaters with optional integrated Sub-Panels
- Black box option for Sub Panels
- Detector loops fully monitored for integrity
- 384 programmable zones
- 512 fully programmable sounder and I/O groups
- Event Log 2000 entries FIFO
- Backlit LCD display 4 * 40
- Multiple programming options, onboard keypad, Remote IR, PS2 Keyboard
- Windows™ based Loader Software
- Windows™ based PC Graphics package for alarm management and reporting(Optional)
- Multiple Language support(menu selectable)
- BMS output RS 232(Optional)
- Evacuate / Class Change input

SPECIFICATIONS	1 & 3 LOOPS	4 to 12 LOOPS
LOOPS	1 to 3 loops - max 250mA per loop	4 to 12 loops - max 250mA per loop
DISPLAY	LCD 4 row/40 characters per row	LCD 4 row/40 characters per row
SOUNDER OUTPUTS	2 at 24Vdc/400mA	4/6/8 24Vdc/ 1A
SOUNDER GROUPS	512	512
AUX. RELAYS FIRE	2 rated 50 VAC/DC 1A resistive	2 rated 50 VAC/DC 1A resistive
AUX. RELAY FAULT	1 rated 50 VAC/DC 1A resistive	1 rated 50 VAC/DC 1A resistive
AUX POWER OUTPUT	24Vdc 460mA	24Vdc 1A
ADDITIONAL OUTPUTS	Multiplexed up to 384 Programmable	Multiplexed up to 384 Programmable
PRIMARY SUPPLY	85 - 265 Vac, 50/60Hz	85 - 265 Vac, 50/60Hz
SECONDARY SUPPLY	24 Vdc Nominal	24 Vdc Nominal
POWER SUPPLY RATING	65w	150w
QUIESCENT CURRENT (NO DEVICES)	130mA	130mA
BATTERIES (INTERNAL)	2 x 12V 12 AH	2 x 12V 12 AH
DIMENSIONS	H: 370 W: 340 D: 127 mm	H: 420 W: 550 D: 127 mm
WEIGHT (NO BATTERIES)	5,1 Kg (no batteries)	8,1 Kg (no batteries)
OPERATING TEMPERATURE	0°C to +40°C	0°C to +40°C
STORAGE TEMPERATURE	-10 to +50°C	-10 to +50°C
HUMIDITY	max 85% no condensation	max 85% no condensation
PROTECTION CATEGORY	IP40	Ip40
EMC - Same for all models	EMC Directive 89/336 and amendment 92/31 EEC & Low Voltage Directive 72/23 EEC	

TECHNICAL SPECIFICATIONS

Arian

Please note that these specifications apply to the stand-alone Arian Analogue Addressable panel, 1 or 3 loops models, equipped with a 2.4 Amp power supply.

Weight:	Empty:	5.1 Kg
	Including sealed lead acid batteries:	
	2 x 12 V 7 AH I	10.5 Kg
	2 x 12 V 12 AH	13.5 Kg
Operating temperature:	0°C to + 40°C	
Relative Humidity:	85% (non-condensing)	
Conventional Sounder Circuits:	2 individually programmed. Both circuits current limited and monitored for both open and short circuit fault conditions. 10k Ohm E.O.L. resistors are used. Maximum current rating/sounder circuit 400mA.	
Auxiliary Relay Outputs:	2 voltage free changeover relay outputs used for fire indication. 1 voltage free relay output for fault indication. Remains energised (normally closed) under normal condition and de-energises when any fault condition appears on the system. Maximum current rating for each relay contact 1A @ 50 V AC/DC resistive.	
Sensor / Loop Circuits:	1 loop or 3 loop models. Supports analogue addressable devices over a 2 wire combined power and digital data transmission loop. Maximum single loop current loading is 250 mA. Maximum total current load for 3 loops is 750mA. Maximum recommended loop length is 1 Km with 1.5 mm ² wire cross-section. Maximum cable capacitance 120 pF/m. Minimum cable cross-section: 0.5 mm ² Maximum cable cross-section: 2.5 mm ²	
<u>Power Supply and Charger</u>		
Input Operating Voltage:	85-264 V AC.	
Power supply protection:	4 Amp - Fast Action 20 mm HRC Fuse located on electrical mains connector TB, placed on top of the aluminum PSU cover.	
Maximum Continuous Primary Power Supply Rating:	2.4 Amps @ 28 V DC nominal, comprising: 1 Amp max. temperature compensated, short circuit protected, battery charger. 1.4 Amp used for internal electronic circuits and external ancillary circuits: A maximum of 750 mA is available for loop power (250 mA/loop). Maximum of 150 mA for internal electronic circuits. 460 mA for auxiliary power supply output. Under alarm conditions a maximum of 1 Amp current available for conventional sounder circuits.	

TECHNICAL SPECIFICATIONS

Arian

Power Budget Quiescent Condition:	a - 150 mA internal circuits b - 460 mA auxiliary supply outputs c - 750 mA for analogue loop power d - 1 Amp for battery charger.
Alarm Condition:	800 mA for conventional sounder circuits +a+b+c
DC Output Voltage:	Maximum 27.5 V DC Minimum 18.9 V DC
Max. Ripple Voltage:	1 V peak-to-peak @maximum output loading.
Battery Charger Output:	27.5 V DC nominal @ 20°C
Secondary Supply:	24 V sealed lead acid batteries. Minimum capacity 2 x 7 AH Maximum capacity 2 x 12 AH Both fitted internally. Battery Fuse 3 A - 20 mm HRC

Repeater

Supply voltage	24V DC nominal
Quiescent current (without devices)	130mA
Dimensions	W 340mm x H 370mm x D 125mm

Standard Sub-panel

Primary supply voltage	85 - 264 VAC
EMC Standard	EN55022 class B EN61000-4-2,3,4,5,6,8,11 EN61000-3-2,3
Secondary supply voltage	24V DC nominal
Power supply rating	150W
Quiescent current (without devices)	80mA
Repeater outputs	Open collector 24V DC 100mA max
Dimensions 1-9 loops	W 340mm x H 370mm x D 125mm

WARNING: In case of a short circuit or interruption of the analogue detection loop, only a maximum of 32 detectors or call points (per loop) can be prevented, at any given time, of transmitting a fire alarm. In order to assure compliance with this clause, loop isolators have to be installed every 32 devices in the loop

Fireguard Analogue Addressable Control Panel

Key Features

- Fully expandable system from 1-96 Loops with distributed intelligence for added security.
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- Up to 96 Loop sounders with 32 individually programmable addresses per Loop Apollo/Fireguard protocol, 127 with Hochiki protocol.
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- Open collector outputs for Fire, Fault and pre-alarm remote indication.
- 2 fully monitored sounder outputs on main panel and each sub panel.
- Repeaters with optional integrated Sub-Panels
- Black box option for Sub Panels
- Detector loops fully monitored for integrity
- 384 programmable zones
- 512 fully programmable sounder and I/O groups
- Event Log 2000 entries FIFO
- Backlit LCD display 4 * 40
- Multiple programming options, onboard keypad, Remote IR, PS2 Keyboard
- Windows™ based Loader Software
- Windows™ based PC Graphics package for alarm management and reporting(Optional)
- Multiple Language support(menu selectable)
- BMS output RS 232(Optional)
- Evacuate / Class Change input

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DISPLAY	LCD 4 row/40 characters per row	LCD 4 row/40 characters per row
SOUNDER OUTPUTS	2 at 24Vdc/400mA	4/6/8 24Vdc/ 1A
SOUNDER GROUPS	512	512
AUX. RELAYS FIRE	2 rated 50 VAC/DC 1A resistive	2 rated 50 VAC/DC 1A resistive
AUX. RELAY FAULT	1 rated 50 VAC/DC 1A resistive	1 rated 50 VAC/DC 1A resistive
AUX POWER OUTPUT	24Vdc 460mA	24Vdc 1A
ADDITIONAL OUTPUTS	Multiplexed up to 384 Programmable	Multiplexed up to 384 Programmable
PRIMARY SUPPLY	85 - 265 Vac, 50/60Hz	85 - 265 Vac, 50/60Hz
SECONDARY SUPPLY	24 Vdc Nominal	24 Vdc Nominal
POWER SUPPLY RATING	65w	150w
QUIESCENT CURRENT (NO DEVICES)	130mA	130mA
BATTERIES (INTERNAL)	2 x 12V 12 AH	2 x 12V 12 AH
DIMENSIONS	H: 370 W: 340 D: 127 mm	H: 420 W: 550 D: 127 mm
WEIGHT (NO BATTERIES)	5,1 Kg (no batteries)	8,1 Kg (no batteries)
OPERATING TEMPERATURE	0°C to +40°C	0°C to +40°C
STORAGE TEMPERATURE	-10 to +50°C	-10 to +50°C
HUMIDITY	max 85% no condensation	max 85% no condensation
PROTECTION CATEGORY	IP40	Ip40
EMC - Same for all models	EMC Directive 89/336 and amendment 92/31 EEC & Low Voltage Directive 72/23 EEC	

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	Including sealed lead acid batteries:	
	2 x 12 V 7 AH I	10.5 Kg
	2 x 12 V 12 AH	13.5 Kg
Operating temperature:	0°C to + 40°C	
Relative Humidity:	85% (non-condensing)	
Conventional Sounder Circuits:	2 individually programmed. Both circuits current limited and monitored for both open and short circuit fault conditions. 10k Ohm E.O.L. resistors are used. Maximum current rating/sounder circuit 400mA.	
Auxiliary Relay Outputs:	2 voltage free changeover relay outputs used for fire indication. 1 voltage free relay output for fault indication. Remains energised (normally closed) under normal condition and de-energises when any fault condition appears on the system. Maximum current rating for each relay contact 1A @ 50 V AC/DC resistive.	
Sensor / Loop Circuits:	1 loop or 3 loop models. Supports analogue addressable devices over a 2 wire combined power and digital data transmission loop. Maximum single loop current loading is 250 mA. Maximum total current load for 3 loops is 750mA. Maximum recommended loop length is 1 Km with 1.5 mm ² wire cross-section. Maximum cable capacitance 120 pF/m. Minimum cable cross-section: 0.5 mm ² Maximum cable cross-section: 2.5 mm ²	
<u>Power Supply and Charger</u>		
Input Operating Voltage:	85-264 V AC.	
Power supply protection:	4 Amp - Fast Action 20 mm HRC Fuse located on electrical mains connector TB, placed on top of the aluminum PSU cover.	
Maximum Continuous Primary Power Supply Rating:	2.4 Amps @ 28 V DC nominal, comprising: 1 Amp max. temperature compensated, short circuit protected, battery charger. 1.4 Amp used for internal electronic circuits and external ancillary circuits: A maximum of 750 mA is available for loop power (250 mA/loop). Maximum of 150 mA for internal electronic circuits. 460 mA for auxiliary power supply output. Under alarm conditions a maximum of 1 Amp current available for conventional sounder circuits.	

TECHNICAL SPECIFICATIONS

Arian

Power Budget Quiescent Condition:	a - 150 mA internal circuits b - 460 mA auxiliary supply outputs c - 750 mA for analogue loop power d - 1 Amp for battery charger.
Alarm Condition:	800 mA for conventional sounder circuits +a+b+c
DC Output Voltage:	Maximum 27.5 V DC Minimum 18.9 V DC
Max. Ripple Voltage:	1 V peak-to-peak @maximum output loading.
Battery Charger Output:	27.5 V DC nominal @ 20°C
Secondary Supply:	24 V sealed lead acid batteries. Minimum capacity 2 x 7 AH Maximum capacity 2 x 12 AH Both fitted internally. Battery Fuse 3 A - 20 mm HRC

Repeater

Supply voltage	24V DC nominal
Quiescent current (without devices)	130mA
Dimensions	W 340mm x H 370mm x D 125mm

Standard Sub-panel

Primary supply voltage	85 - 264 VAC
EMC Standard	EN55022 class B EN61000-4-2,3,4,5,6,8,11 EN61000-3-2,3
Secondary supply voltage	24V DC nominal
Power supply rating	150W
Quiescent current (without devices)	80mA
Repeater outputs	Open collector 24V DC 100mA max
Dimensions 1-9 loops	W 340mm x H 370mm x D 125mm

WARNING: In case of a short circuit or interruption of the analogue detection loop, only a maximum of 32 detectors or call points (per loop) can be prevented, at any given time, of transmitting a fire alarm. In order to assure compliance with this clause, loop isolators have to be installed every 32 devices in the loop

Saxon Range

**1-2 Loop Analogue Addressable Control Panels
(XP95 & Discovery Protocols)**



Key Features

From 1-2 loops

Compliant with EN54 parts 2 and 4, BS EN 60950 and BS EN 50130 part 4

Full Apollo XP95 and Discovery compatibility

Automatic recognition of Apollo outstations

Extensive mode change options by day/night and special group allocation

Windows-based, full upload/download PC software package

500mA output per loop with highly stable voltage platform, even under mains-failed conditions

Fully networkable with other Saxon and Excel Series panels, graphics package and **Integra** network repeaters

Powerful processing and extensive panel and loop I/O capability

User-friendly controls and a clear, unambiguous screen

Membrane facia with tactile switches

Complies with EMC and LVD Directives

Saxon Range

Introduction

The Saxon range analogue addressable panels are a powerful yet user-friendly series of control panels. They are designed to a high standard in compliance with EN54, parts 2 & 4. Each panel in this modular series has considerable processing ability but is easy to install, programme and operate. This is supported by comprehensive support documentation. Panels are housed in steel enclosures and are finished in hardwearing epoxy paint.

This panel is ideally suited to installations which require very complex sounder and control/shutdown functions. The panels are programmable to meet individual site requirements by means of a cause & effect matrix. This is downloaded from a PC, using the Cause & Effect Edit Programme. Text may be edited via a keyboard or downloaded from a PC.

The Saxon has a 4 line x 20 character backlit LCD display, showing the first and most recent event. Other events may be reviewed using the More Messages facility. User controls are accessed by means of keyswitch-enabled membrane controls, with password protection for engineer purposes. Each panel has a high level of processing power and each loop has its own processor. The panel allows up to 126 addresses per loop. All addresses on a loop may be used for output functions, with 3 independently programmable output bits per address.

By using Apollo Discovery detectors, the system may be configured to automatically switch between heat and smoke detection at selected times of day or week. Additional facilities are also provided for temporary switching between smoke and heat detection to suit short-term changes in environmental conditions.

Up to 248 user-definable panel inputs and relay/two-stage alarm outputs can be provided via expansions boards. Many useful testing and service functions are also provided. All events may be recorded on the optional printer and zonal indications are included as standard. There is a complete range of compatible accessories available to support the Saxon panels to meet most customer requirements. The addition of a network card to the panel will allow monitoring, indication and control of the functions of a networked installation, allowing signals to be distributed around a large site.

Technical Specifications

Mains voltage	230V AC +10% -6%	
Mains failed fault battery current	1 loop - 145mA	2 loop - 170mA
Mains failed alarm battery current	1 loop - 260mA	2 loop - 285mA
Maximum battery charging current	1.5A	
Alarm circuits	2 @ 1A per circuit	
Auxiliary supply	20V-28V @ 500mA	
Weight (excluding batteries)	8kg	
Dimensions	370mm high x 325mm wide x 139mm deep	

Part Numbers

2500/955 Saxon 1 loop control panel
2500/956 Saxon 2 loop control panel

Conventional Control Panels



Key Features

From 2 to 32 zones (up to 32 detectors per zone)

EN54-2 approval by LPCB

Comprehensive end-user facilities (access level 2)

Designed & built using the latest technology for optimum performance and consistently high quality

Extensive configurable facilities for the engineer via DIL switches

4 alarm circuits as standard (4 zone panel and above)

Up to 5 fully-functional repeaters - 2-wire RS485

Range of EN54 compliant power supply modules, designed to meet the specific load requirements of each size panel

Zonal one-man test feature and sounder one-man test facility

Short Circuit to fire setting for use with older type detectors

Panel inputs for class change, evacuate, silence alarms, system reset

3 open collector outputs for evacuate, buzzer active, disablement active

Auxiliary supply output - monitored fuse

Panel expansion boards for open collector, relay and alarm outputs

Optional timer clock/counter module

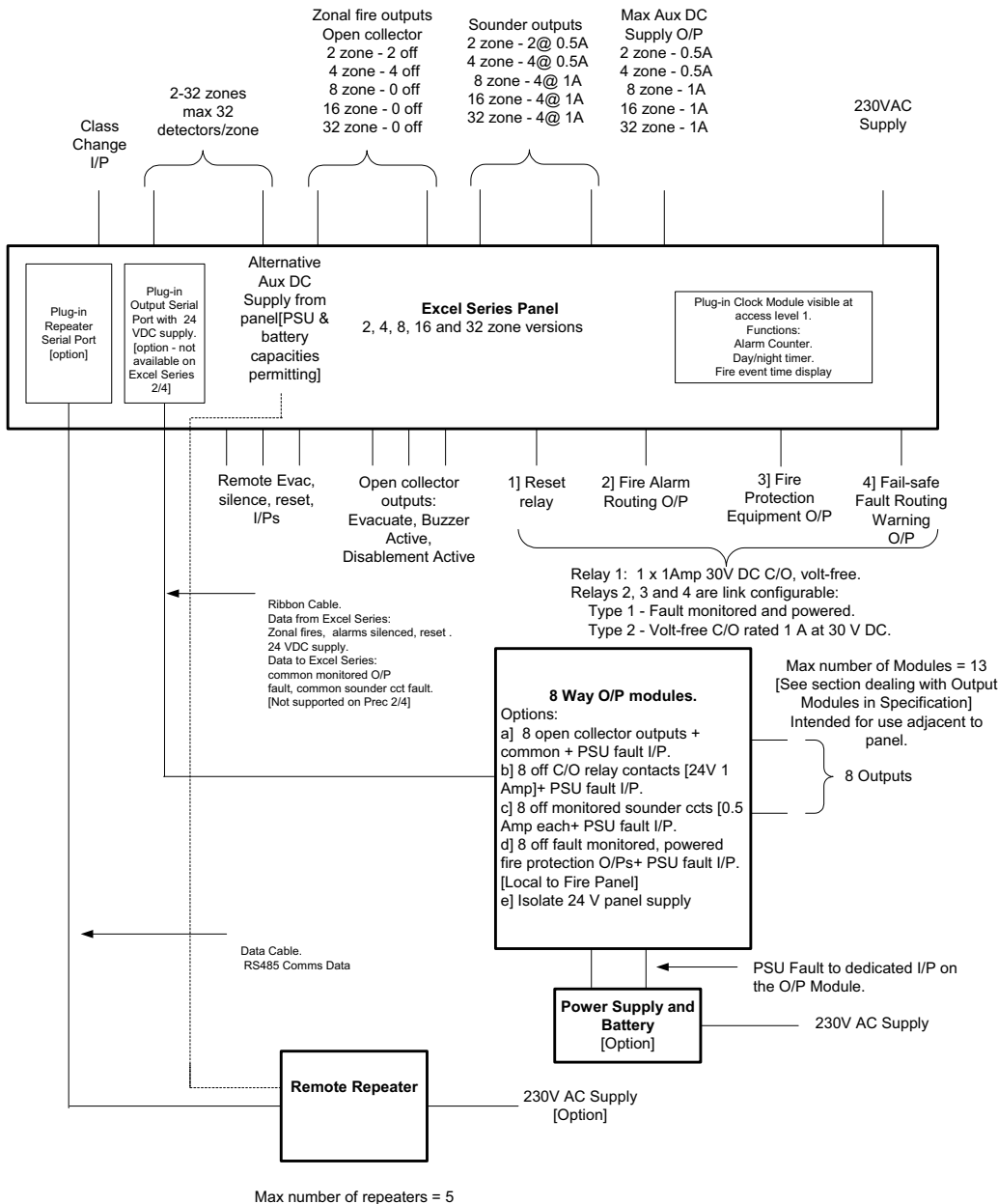
Conventional Control Panels Excel Series

Introduction

The Excel Series range of conventional control panels is a powerful yet user-friendly series of control panels. They are designed and manufactured to a high standard and is approved by the Loss Prevention Certification Board (LPCB) to EN54-2 and EN54-4. The Excel Series range has earned a reputation over many years for quality and reliability and is recognised as market leader in many countries around the world. This latest generation takes advantage of the very latest technological advancements both in terms of design and manufacturing techniques to meet the exacting requirements of the latest European standards.

Each panel in this series has extensive configuration options but is easy to install, programme and operate. This is supported by comprehensive documentation on commissioning, operation & maintenance.

The panels are designed for use with a wide range of manufacturers' detectors. A complete range of fully-flush and semi-flush bezels can be supplied for all Excel Series control panels. There is also a comprehensive range of other compatible equipment such as repeaters, relays and power supply units, available to meet customer requirements.



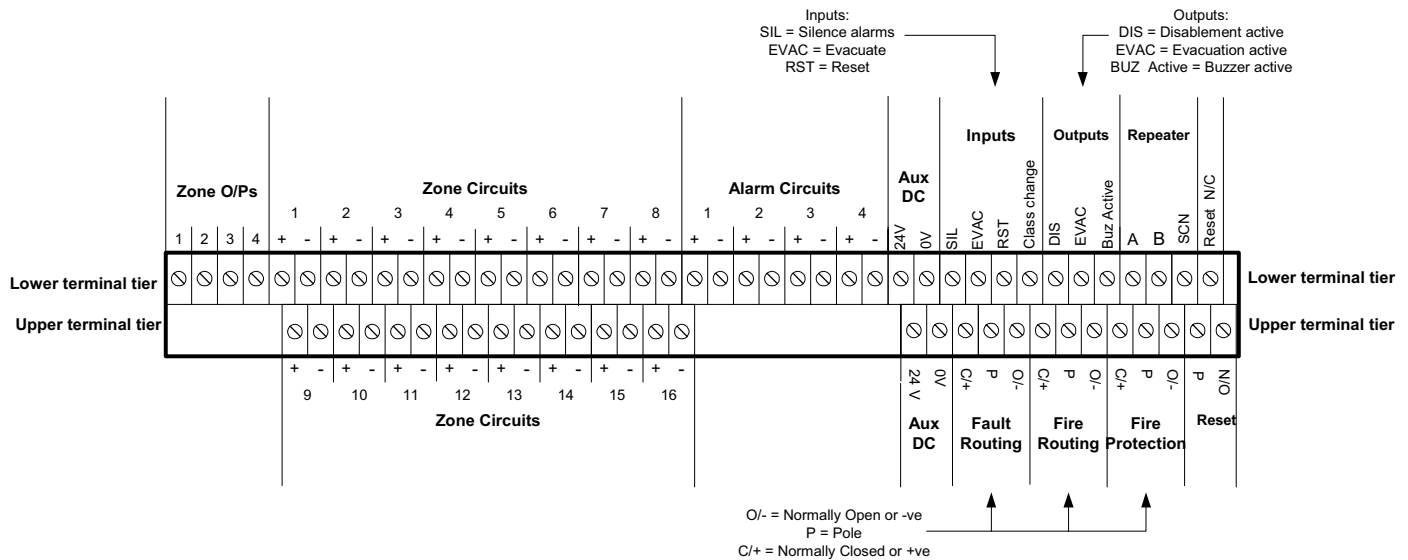
Conventional Control Panels Excel Series Facilities in Detail

Excel Series Facilities in Detail

<p>Switching regulator power supplies with temperature — compensated battery charging</p> <p>Battery disconnect</p> <p>Class change input</p> <p>Configurable detection zones</p> <p>Active fault monitoring on the detection zone wiring. [Non – Intrinsically Safe applications only]</p> <p>Selectable Zonal or General alarm sounder operation with sounders in alert or silent in adjacent zones.</p> <p>Configurable Fire Routing, Fire Protection and Fault Routing output relays</p> <p>Reset Relay</p> <p>Auxiliary 24 V DC power supply output</p> <p>Open collector outputs</p> <p>Remote inputs</p> <p>Earth Fault monitoring</p> <p>Zone/Output disablement feature</p> <p>One Man Zone Test</p> <p>One Man Sounder Test</p> <p>Configurable Delay Mode Facility</p> <p>Other configuration features</p> <p>Repeater panels</p>	<p>High efficiency voltage regulation. Battery-charging voltage automatically adjusted between 28.6 and 26.5 V DC over an ambient temperature range of –5 to +40 deg C.</p> <p>Protects the battery from permanent damage due to over discharge by automatically disconnecting it when the battery voltage falls to 19.5V.</p> <p>Operates all sounders for up to 5 seconds.</p> <p>Simple and flexible display-based configuration process, allowing detection zones to be configured as either:</p> <ul style="list-style-type: none"> o Latching/non-latching. o Delayed/non-delay. o Standard/Intrinsically Safe mode. <p>Factory configuration: Latching, non-delay, standard [non-I.S.]</p> <p>Reduces zone monitoring current and reduces the required battery capacity. Maintains total detector availability following the removal of a detector.</p> <p>Selectable via DIL switches on the motherboard. The standard sounders on the 2 and 4 zone panels can be used in General or Zonal modes. The output expansion system [available later] provides additional sounders circuits for General or Zonal use on the 8, 16 and 32 zone panels.</p> <p>Configuration links on the motherboard allow each relay to be individually selected to the EN54 powered/fault monitored mode or volt –free changeover. Factory configuration - "EN54 Mode".</p> <p>A volt-free changeover contact operating for 10 seconds on panel fire reset.</p> <p>Protected by an electronic fuse and reset by operating reset switch. Operation of the fuse is indicated on the display.</p> <ul style="list-style-type: none"> o Evacuate Active. o Buzzer Active. o Disablement Active. o Zonal fire for each zone up to zone 4. Zonal output expansion on 8-32 zone versions [availability tba]. <p>Remote evacuation. Silence alarms. Reset.</p> <p>Can be disabled via link on the motherboard.</p> <p>Each zone along with the Fire Routing, Fire Protection, Fault Routing and sounder circuits can be independently disabled/enabled.</p> <p>Each zone can be independently set to the One Man test condition. Sounders can be configured to operate briefly to confirm the fire panel has detected the test fire or the test may be configured for no sounder operation.</p> <p>Operates the sounders intermittently.</p> <p>Flexible system allowing:</p> <ul style="list-style-type: none"> o Any zone to be configured as a delay zone. o Single or two-stage delay. o 1 to 9 minute delay [for single stage or second stage of 2-stage delay]. o Selection of the output to be delayed [Fire Routing, Fire Protection, Sounders] – can be any combination. <ul style="list-style-type: none"> o "Short circuit to fire" for use with older type detectors o To prevent the Fire Protection output operating from a fire condition on a "Non-Latch" zone. o To inhibit the silencing and resetting of the panel for 3 minutes following the occurrence of a fire alarm. o To set the sounders to operate only when the panel is in the Evacuate condition. o To inhibit the resetting of the fire alarm condition until the alarm sounders have been silenced. o To disable the panel buzzer. o To select latching fault mode where all fault conditions latch until the panel is manually reset. o Restore default configuration of zones and outputs to be delayed. <p>Supporting up to 5 repeaters via RS485 comms.</p>
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Conventional Control Panels Excel Series

Typical Termination Arrangement (Excel Series 16 zone)



Optional Enhancements

- 4 options for 8-way output modules (See schematic diagram)
- Semi-flush bezels
- Fully-flush bezels
- Matching cabinets to house enhancement boards and power supplies
- Matching style repeater panels (Locally and panel powered)
- Timer clock/counter module, factory set as either day/night and alarm counter or fire alarm clock display

Ordering Details

Part Number	Description
2605/100	Excel Series 2 zone panel
2605/101	Excel Series 4 zone panel
2605/102	Excel Series 8 zone panel
2605/103	Excel Series 16 zone panel
2605/104	Excel Series 32 zone panel

Saxon Range 1-8 Zone Conventional Control Panels



Key Features

- Built-in detector removal indication facility
- From 1 to 8 zones
- 4 Alarm circuits on 4-8 zone panels
- Conforms to the requirements of EN54-2
- User-friendly access code
- One-man test facility
- Non-latching zone feature
- Class change input
- Earth fault monitoring
- Fully-functional repeater available (4 & 8 zone panels only)
- Removable cable-entry grommets
- User-friendly controls
- Surface or semi-flush mounting as standard
- Ample termination space
- Flame-resistant polycarbonate enclosure
- Log book and manual supplied
- Complies with EMC and LVD directives

Introduction

The Saxon Range conventional panel may be supplied in 1, 2, 4 or 8 zone formats. It complies with the requirements of EN54 Part 2. All zones and alarm circuits are monitored for open and short circuit fault conditions with detector removal facility also provided as standard.

The cabinet will house 2 x 12V 2.1AH S.L.A. batteries wired in series, which will sustain an 8 zone panel for up to 24 hours. All panels have a zone 1 non-latch facility to enable panel interlinking without "lock-up" occurring. The class change input enables the alarm circuits to operate without panel indication or panel latching.

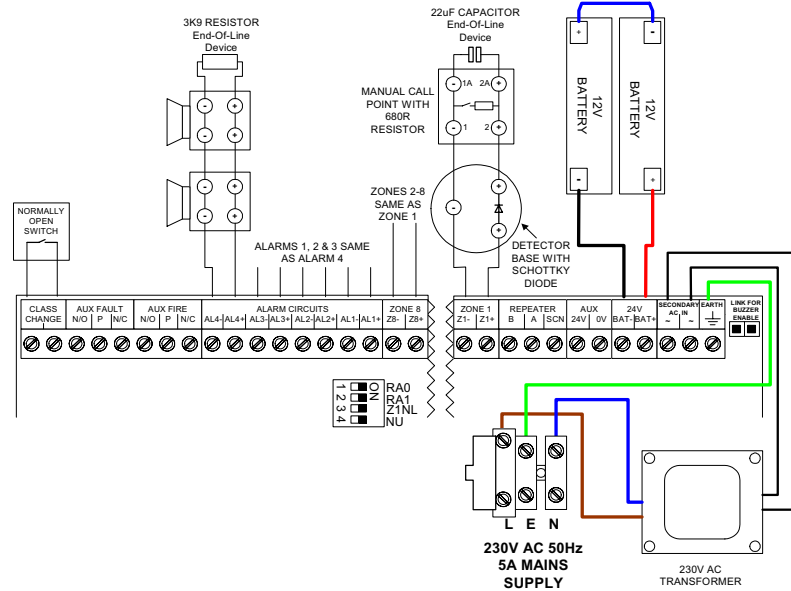
The cabinet back-box houses only the transformer, thus providing a virtually empty enclosure for first fix installation. A steel gland plate, removable plastic grommets and ample space are designed to assist with cable termination. A slide-in insert is included for clear zone identification. The surface-mount electronics motherboard is fitted and terminated after first fix installation. Finally a terminal cover completes the panel installation.

The 4 & 8 zone panels will accommodate up to 3 repeater panels, which are connected by a shielded 2-core data cable where the repeater panels are powered locally, or an additional 2-core may be run from the panel for power (Max. 1 repeater may be powered from the panel).

Saxon Range

1-8 Zone Conventional Control Panels

Typical Connections



Technical Specifications

	1 zone panel	2 zone panel	4 zone panel	8 zone panel
Maximum field equipment load:	800mA			
Auxiliary 24VDC output	250mA			
Mains failed current consumption:	35mA @24VDC	40mA @24VDC	40mA @24VDC	40mA @24VDC
Maximum battery charger output:	500mA @27.5 VDC			
Common fire output:	Volt-free contacts - 1A, 30V DC max.			
Common fault output:	Volt-free contacts - 1A, 30V DC max.			
Alarm circuit output:	2 at 250mA each @28VDC	4at 500mA each @28VDC	4at 500mA each @28VDC	4at 500mA each @28VDC
Battery size:	2 x 12V 2.1AH sealed lead acid	2 x 12V 2.1AH sealed lead acid	2 x 12V 2.1AH sealed lead acid	2 x 12V 2.1AH sealed lead acid
Cabinet Sizes (Back box only)	245mmH x 287mmW x 66mmD (Excluding front cover)			
Weight (excluding batteries):	2.3kg	2.3kg	2.3kg	2.3kg

Note: On the 4-8 zone panels the total current available for the field devices is 800mA at 24VDC. This current must be shared between the alarm and aux. supply.

Part Numbers

2500/383	Saxon Range 1 zone control panel
2500/384	Saxon Range 2 zone control panel
2500/385	Saxon Range 4 zone control panel
2500/386	Saxon Range 8 zone control panel
2500/967	Saxon Range Repeater c/w PSU
2500/968	Saxon Range Repeater— Panel Powered

Saxon Range

**1-2 Loop Analogue Addressable Control Panels
(XP95 & Discovery Protocols)**



Key Features

From 1-2 loops

Compliant with EN54 parts 2 and 4, BS EN 60950 and BS EN 50130 part 4

Full Apollo XP95 and Discovery compatibility

Automatic recognition of Apollo outstations

Extensive mode change options by day/night and special group allocation

Windows-based, full upload/download PC software package

500mA output per loop with highly stable voltage platform, even under mains-failed conditions

Fully networkable with other Saxon and Excel Series panels, graphics package and **Integra** network repeaters

Powerful processing and extensive panel and loop I/O capability

User-friendly controls and a clear, unambiguous screen

Membrane facia with tactile switches

Complies with EMC and LVD Directives

Saxon Range

Introduction

The Saxon range analogue addressable panels are a powerful yet user-friendly series of control panels. They are designed to a high standard in compliance with EN54, parts 2 & 4. Each panel in this modular series has considerable processing ability but is easy to install, programme and operate. This is supported by comprehensive support documentation. Panels are housed in steel enclosures and are finished in hardwearing epoxy paint.

This panel is ideally suited to installations which require very complex sounder and control/shutdown functions. The panels are programmable to meet individual site requirements by means of a cause & effect matrix. This is downloaded from a PC, using the Cause & Effect Edit Programme. Text may be edited via a keyboard or downloaded from a PC.

The Saxon has a 4 line x 20 character backlit LCD display, showing the first and most recent event. Other events may be reviewed using the More Messages facility. User controls are accessed by means of keyswitch-enabled membrane controls, with password protection for engineer purposes. Each panel has a high level of processing power and each loop has its own processor. The panel allows up to 126 addresses per loop. All addresses on a loop may be used for output functions, with 3 independently programmable output bits per address.

By using Apollo Discovery detectors, the system may be configured to automatically switch between heat and smoke detection at selected times of day or week. Additional facilities are also provided for temporary switching between smoke and heat detection to suit short-term changes in environmental conditions.

Up to 248 user-definable panel inputs and relay/two-stage alarm outputs can be provided via expansions boards. Many useful testing and service functions are also provided. All events may be recorded on the optional printer and zonal indications are included as standard. There is a complete range of compatible accessories available to support the Saxon panels to meet most customer requirements. The addition of a network card to the panel will allow monitoring, indication and control of the functions of a networked installation, allowing signals to be distributed around a large site.

Technical Specifications

Mains voltage	230V AC +10% -6%	
Mains failed fault battery current	1 loop - 145mA	2 loop - 170mA
Mains failed alarm battery current	1 loop - 260mA	2 loop - 285mA
Maximum battery charging current	1.5A	
Alarm circuits	2 @ 1A per circuit	
Auxiliary supply	20V-28V @ 500mA	
Weight (excluding batteries)	8kg	
Dimensions	370mm high x 325mm wide x 139mm deep	

Part Numbers

2500/955 Saxon 1 loop control panel
2500/956 Saxon 2 loop control panel

Repeater Panels

Repeater Panels

Saxon CB200 repeater



Part Numbers

2500/968	CB200 repeater panel
2500/967	CB200 repeater panel c/w 230v power supply

Excel EN repeater



Part Numbers

2605/110	EN 8 zone repeater c/w 230v power supply
2605/111	EN 16 zone repeater c/w 230v power supply
2605/112	EN 32 zone repeater c/w 230v power supply
2605/115	EN 8 zone repeater
2605/116	EN 16 zone repeater
2605/117	EN 32 zone repeater

Saxon/ Excel Addressable



Part Numbers

2500/847	Saxon Repeater Panel
2500/848	Saxon Repeater Panel c/w 230v power supply
2500/830	Excel Repeater Panel
2500/842	Excel Repeater Panel c/w 230v power supply
2500/844	Excel Repeater Panel c/w 230v power supply and 32 zonal led indications.
2500/162	A1619 driver board

iQ500 series 1-4 Loop intelligent fire alarm control panel

Fireguard iQ series addressable control panels delivers the power and flexibility to meet the even most demanding requirements from 1-4 loops in a single panel to over 64 loops on a network. Fireguard comprehensive range of detectors, advanced fire detection sensors and loop devices delivers you the most complete and versatile fire alarm system with UL approvals.

Fireguard iQ series addressable control panels are Microprocessor based panels comes with networking capability. Each loop can accommodate 254 Multi protocol devices with Auto scanning facility. Different sensitivity levels can be assigned to individual smoke sensors thereby allowing the system designer to closely match the sensor's response to the environment in which the device is installed.

Multiple panel networks can be programmed seamlessly as one system, allowing for flexible design and total system management. Large LCD display of 40x4 characters allows clear indication of fire or fault location.

Fireguard iQ series are the most consistent and robust networking systems which are ideally suited to even the largest office complexes, shopping centres, University campus, sports stadiums etc.

Features:

- As per UL 864, 9th Edition & NFPA 72.
- 32 bit Processor - Arm Cortex M3.
- 40 x 4 Characters LCD display.
- Touch Key pad for user friendly operation
- Maximum 4 number of loop cards with class A or B wiring.
- Maximum 254 devices (Combination of Devices) per loop.
- Up to 192 Grouping Facility.



- Auto Scanning Facility.
- Device wise Configuration Facility.
- Auto Device type Verification.
- Programmable Detector Sensitivity.
- 2000 Event storage with real time clock
- Day / Night Mode Facility.
- USB 2.0 Interface for PC connectivity.
- Rs 485 Communication Facility for Network / Repeater
- Auto Dialer / GSM Module (Optional)
- Ethernet Module (Optional)
- Printer interface Module (Optional)
- Programmable Auto silence Facility
- Programmable Trouble Remainder Facility
- Programmable AC Loss Delay
- Programmable Silence inhibit.
- Loop wise test Facility
- Operates on 110 to 220 V AC, 60 / 50 Hz.
- Battery Backup 24V DC with built in charger
- Battery low visual warning with audible tone
- Three nos. form C relay for fire, Fault and Supervisory.
- Supervised 24V DC Output.
- Two nos. of Supervised notification Appliance circuits.

Technical Specification :

Primary Power

120 - 220VAC + 10% - 15%, 60 / 50 Hz,

Standby Power

24v D.C (2 Nos of 12v, 14Ah Sealed Lead acid battery).

Operating Condition

Operating Temperature 0-49° C/32-120° F.

Relative Humidity 93±2% RH (non-condensing) at 32 ±2° C/96 ±30 F.

Charging Circuit

Charging Voltage 28.4V, ±0.2V Nominal

Charging Current 1.2A (Max.).

Signaling Line Circuits

Class A or B loop Card: 4 Nos Maximum

Number of Device per loop: Multi protocol for Devices

Number of Device per loop: 254 Devices per Loop

Loop resistance: 40 ohms (Max.).

Loop Capacitance: 06 µf (Max.).

Loop Current: 250mA (Max.).

Initiating Device Circuits

All zones are Class B Style B/C operation (Programmable).

Normal Operating Voltage : 14-21 VDC.

Alarm Current : 15- 30mA.

Short Circuit Current : 45mA Maximum

Loop resistance : 100 ohms Maximum

End-Of-Line Resistor : 4k7, 1/2watt

Standby Current : 7mA (2mA for Detectors)

Notification Appliance Circuits

Class B Style - Y wiring

Operating Nominal Voltage : 24VDC Nominal

Current for NACs: 1Amps

Line Drop: 2.4V

End-Of-Line Resistor: 4K7, 1/2watt

D.C. Output

Supervised 24VDC, 300mA Max.

3 Common Three Form C Relays

Relay Contact Rating : 2Amps @ 30 VDC. 2Amps @ 30VAC.

Power Factor : 0.6

iQ400 series 4 and 8 Zone conventional fire alarm control panel

Fireguard iQ series microprocessor based UL listed conventional control panels provide a solution to any conventional system requirement. Fireguard iQ series panels fully complies with UL-864 and NFPA-72. It comes with 16x2 dot matrix LCD display with lamp & walk test facility. Fireguard iQ series panels advanced features included as standard to ensure ease of use and high reliability.



Model iQ400 series-404- 4 Zone
Model iQ400 series-408- 8 Zone

Features:

- 4 Class B initiating device circuit t (IDC).
- All zones accept smoke detectors and any normally open contact device.
- Any Zone can be configured as Alarm or supervisory Zone.
- 2 Class B Notification Appliance Circuits (NAC).
- Fully complies with UL -864 and NFPA-72.
- Rugged CRCA sheet with powder coated finish.

- Operates on 120 - 220V 50 / 60 HZ, AC Mains power supply.
- Standby (battery) backup 24v DC power supply with built in charger.
- 16x2 Dot Matrix LCD Display.
- Error free Fire / Fault status in unambiguous colored LED indication.
- System ON indication.
- Main, Standby status audible and visual indication.
- Battery Low visual warning with audible tone.
- Form-C relays for fire, fault and supervisory.
- Resettable / uninterrupted 24v D.C. Output.
- RS 485 Communication facility (Optional).
- Lamp Test facility.
- Walk Test facility.
- Zone Isolation facility with loop voltage cut off.
- Earth fault annunciation facility at 0 ohm
- All field wiring circuits are Power limited except 110 - 220v AC and Battery.
- All field wiring circuits are supervised.
- AC Low voltage cutoff.
- Programmable NAC's.
- Programmable IDC's.
- Programmable Supervisory Mode.
- Programmable AC loss delay.
- Alarm verification on facility.
- Programmable Trouble reminder facility.

Technical Specification :

Primary Power – CN1 (RE-SMPS-4A-R1)

120 - 220VAC \pm 10%, 50 Hz,

Standby Power – CN10

24v D.C (2 Nos of 12v, 12Ah Sealed Lead acid battery).

Operating Condition

Operating Temperature – 0 - 49° C/32-120° F.

Relative Humidity – 93 \pm 2% RH (non-condensing) at 32 \pm 2° C/90 \pm 3° F.

Charging Circuit

Charging Voltage – 28.2V, \pm 0.5V

Charging Current – 800mA (Max.).

Initiating Device Circuits - CN 8

All zones are Class B Style B/C operation (Programmable).

Normal Operating Voltage : 14-21 VDC.

Alarm Current : 15- 30mA.

Short Circuit Current : 45mA Maximum

Loop resistance : 100 ohms Maximum

End-Of-Line Resistor : 3K9, 1/2watt

Standby Current : 7mA (2mA for Detectors)

Notification Appliance Circuits

Class B Style - Y wiring

Operating Nominal Voltage : 24VDC Special Application

Current for all NACs : 1.2Amps (0.6A per circuit)

Current Limit: CN5 and CN6 via Thermal Fuse

Line Drop : 1.8V

End-Of-Line Resistor : 3K9, 1/2watt

Note: For compatible devices refer Chapter 9(CD 01).

D.C. Power - CN7

Operating Voltage: Supervised 24VDC regulated. 300mA Max. (for 4 wire smoke detector)

Common Three Form C Relays

Relay Contact Rating: 2Amps @ 30 VDC. 2Amps @ 30VAC.

Power Factor: 0.6

Dimension of the panel

440 x 340 x120mm (l x h x d)