

# XFP 1-2 LOOP NETWORKABLE ANALOGUE ADDRESSABLE FIRE ALARM PANELS

Fully compliant with EN54 parts 2 & 4, the XFP Range of networkable analogue addressable fire alarm control panels offers high performance at a competitive price. Available in two different versions (a cost-effective single loop 16 zone panel supplied in a plastic enclosure and a robust 1 or 2 loop 32 zone metal panel), the range offers an array of user and installer-friendly features.



XFP Single Loop 16 Zone Panel



XFP 1 or 2 Loop 32 Zone Panel

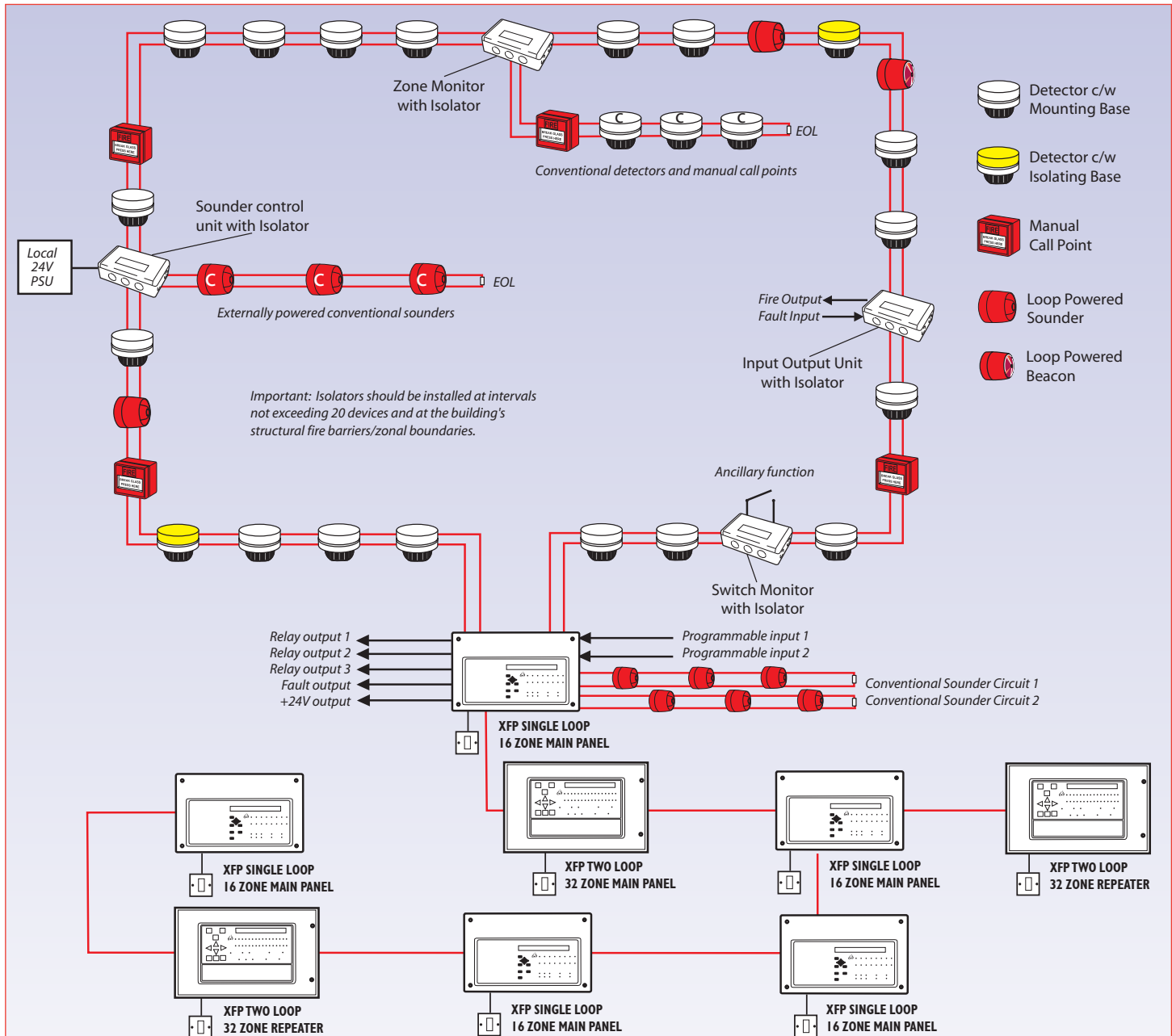
## Key Features

- ▶ **Full compatibility with the Context Plus XP95 range of smoke and heat detectors, call points, sounders and control modules.**
- ▶ **The ability to interconnect up to eight XFP main panels (any variant) plus an additional four XFP repeater panels per main onto a two wire RS485 network.**
- ▶ **Two independently programmable conventional sounder circuits.**
- ▶ **Two programmable inputs.**
- ▶ **A fault output relay and three programmable relay outputs with voltage free changeover contacts.**
- ▶ **A selection of zone dependency/coincidence functions.**  
(allows zones to be individually programmed to be Type A, B or C. Selecting 'Type A' sets the zone up so no action will be taken on the first detected alarm unless there is confirmatory signal from another zone. Selecting 'Type B' sets the zone up so the first detected alarm will be indicated, but a full fire condition will only be established if there is a confirmatory signal from the same zone. Selecting 'Type C' sets the zone up so the panel enters a fire condition on the first detected alarm but certain outputs are inhibited until a confirmatory alarm).
- ▶ **A day/night (building occupied/unoccupied) function.**  
(allows the operational characteristics of the panel to be changed at a pre-determined time. Engineer programmable day/night changes include detector sensitivity (high/low) and zone dependency settings).
- ▶ **An investigation delay period function.**  
(programmable for length of time, which zone(s) it applies to and whether or not it operates in day/night mode).
- ▶ **Individual sensitivity settings for each device.**
- ▶ **A phased evacuation facility.**
- ▶ **An alarm counter that records the number of times the panel has been in an alarm state (to meet clause 7.13 of EN54-2).**
- ▶ **Powerful short circuit protected loop drivers, capable of supporting up to 40 loop powered 10mA sounders per loop.**
- ▶ **An integral EN54 switch mode PSU rated @ 185-260V a.c. 50/60Hz (3A on 32 zone panel, 1.4A on 16 zone panel).**
- ▶ **Adjustable contamination levels.**
- ▶ **Earth fault monitoring.**
- ▶ **Push button access code or keyswitch entry to Access Levels 2 and 3 (depending on model purchased).**
- ▶ **An easy to read, 80 character back-lit display.**
- ▶ **40 characters of custom text per device.**
- ▶ **999 event monitoring.**
- ▶ **Comprehensive test, maintenance and commissioning functions.**  
(including auto-learn loops, monitor a point, test outputs, one man walk test and loop continuity test).
- ▶ **An intuitive Windows based upload-download PC program that allows the system to be programmed quickly and easily.**

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## A typical XFP analogue addressable loop / XFP networking details

Below is a diagram of typical Context Plus XP95 analogue addressable loop fitted with a selection of Context Plus detectors, loop-powered sounders, modules and isolators, all connected to an XFP single loop 16 zone fire panel. The diagram also illustrates how a series of XFP fire panels can be networked together using the range's powerful RS485 network. Note that this drawing is provided for illustration purposes only and you should always refer to the relevant XFP and Context Plus instruction manual(s) before installing a system.



### KEY FEATURES OF XFP NETWORK PROTOCOL

- ▶ Supports eight interconnected XFP panels over a two-wire RS485 network.
- ▶ Single loop 16 zone XFPs and 1 to 2 loop 32 zone XFPs may be networked together.
- ▶ Any main panel can have up to four repeaters connected to it.
- ▶ Up to 1 km of cable may be fitted to a network system.
- ▶ Each networked XFP panel can be programmed to:
  - Accept Faults from other panels.
  - Accept Fires from other panels.
  - Accept Control actions such as silence control sounder, silence alarm sounders and reset from other panels.
  - Accept Disablement commands for zones, sounders and output sets from other panels. (Each of these four functions may be individually selected).
- ▶ All panels monitor all other panels for network wiring faults.
- ▶ Fires on remote panels are displayed in detail on a local panel including the point description of the origin of the alarm.
- ▶ Faults on remote panels are displayed in detail on a local panel including the point description in the case of a detector.
- ▶ Cause and effect can be programmed into a local panel dependent on which remote panel is in alarm.
- ▶ The network supports programming of site information into remote panels from a PC connected at a local panel.
- ▶ Time and date is common to all panels throughout the network.
- ▶ All panels connected to the network need a network driver card.

# XFP 1-2 LOOP NETWORKABLE ANALOGUE ADDRESSABLE FIRE ALARM PANELS

## Part numbers



### XFP SINGLE LOOP 16 ZONE PANELS

- XFP501E/X XFP Networkable single loop 16 zone panel  
Context Plus XP95 protocol.  
Code entry, c/w 1.4A psu, plastic enclosure

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- XFP501EK/X XFP Networkable single loop 16 zone panel  
Context Plus XP95 protocol  
Keyswitch entry, c/w 1.4A psu, plastic enclosure



### XFP 1 OR 2 LOOP 32 ZONE PANELS

- XFP501/X XFP Networkable one loop 32 zone panel  
Context Plus XP95 protocol  
Code entry, c/w 3A psu, metal enclosure

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- XFP501K/X XFP Networkable one loop 32 zone panel  
Context Plus XP95 protocol  
Keyswitch entry, c/w 3A psu, metal enclosure

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- XFP502/X XFP Networkable two loop 32 zone panel  
Context Plus XP95 protocol  
Code entry, c/w 3A psu, metal enclosure

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- XFP502K/X XFP Networkable two loop 32 zone panel  
Context Plus XP95 protocol  
Keyswitch entry, c/w 3A psu, metal enclosure

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- AFP385 Flush mounting bezel (for XFP 32 zone panels)

### XFP REPEATER PANELS & ANCILLARIES

- XFP510 XFP Networkable repeater panel, 32 zones  
Code entry, c/w psu, metal enclosure

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- XFP510K XFP Networkable repeater panel, 32 zones  
Keyswitch entry, c/w psu, metal enclosure

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- AFP385 Flush mounting bezel (for XFP 32 zone repeater)

### XFP NETWORK COMMUNICATION CARDS

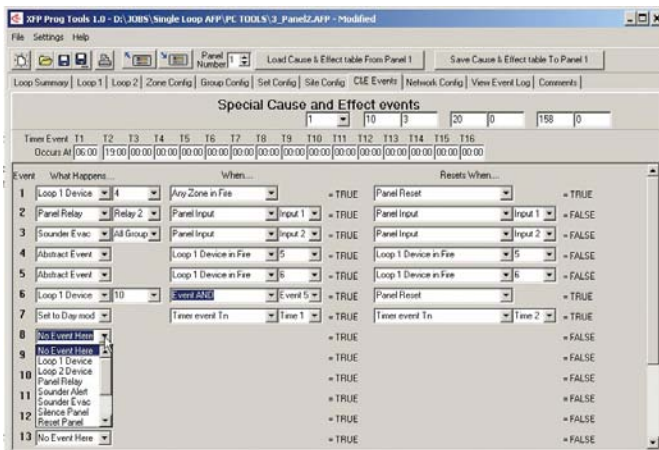
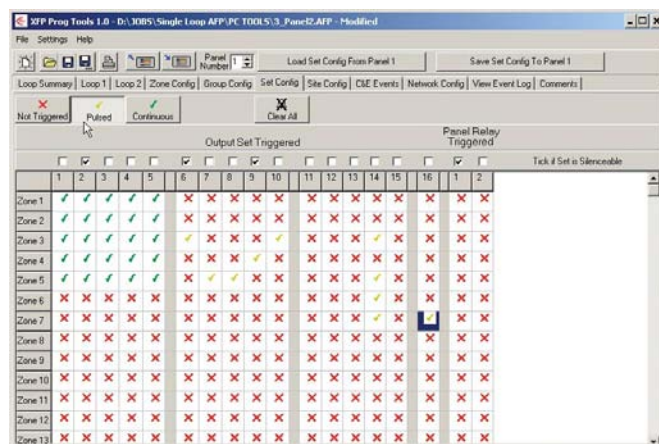
- CFP761 XFP network communication card for XFP 16 zone  
panels (one required for each networked panel).

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- AFP711 XFP network communication card for XFP 32 zone  
panels (one required for each networked panel).

### XFP PROGRAMMING SOFTWARE

- XFP507 XFP Upload/download software kit



The XFP's intuitive upload/download software

# XFP TECHNICAL SPECIFICATIONS

## Power Supply Specification

	XFP501/X; XFP501K/X; XFP502/X; XFP502K/X (one or two loop 32 zone panels - as indicated)	XFP501E/X; XFP501EK/X (single loop 16 zone panels)
Mains supply voltage	230V a.c. $\pm$ 10% 50/60Hz	230V a.c. $\pm$ 10% 50/60Hz
Internal power supply	27V d.c. Nominal	27V d.c. Nominal
Total output current limited to	3A @ 230 V a.c.	1.4A @ 230V a.c.
Supply and battery charger monitored for failure	Yes	Yes
Batteries monitored for disconnection and failure	Yes	Yes
Batteries protected against deep discharge	Yes	Yes
Max. battery size and type	7.0 Ahr VRLA	3.2 Ahr VRLA
Quiescent current drain (1 loop unloaded)	< 80mA	< 50mA
Quiescent current drain (2 loop unloaded)	< 100mA	not applicable
Earth fault monitoring	Yes (any conductor)	Yes (any conductor)
Temperature compensated charging	Yes	Yes

## Loop Driver Specification

	1 (XFP501/X & XFP501K/X); 2 (XFP502/X & XFP502K/X)	1
Number of loop drivers	1 (XFP501/X & XFP501K/X); 2 (XFP502/X & XFP502K/X)	1
Line monitored for open and short circuit faults	Yes	Yes
Onboard loop isolators with LED indication when active	Yes	Yes
Auto-polling from each loop end	Yes	Yes
Max. loop output current	500mA	500mA
Max. number of addressable devices per loop	126	126
Max. number of loop powered sounders per loop @ 10mA	40	40
Number of programmable sounder groups	15	15
Number of programmable output sets	32	32

## Conventional Sounder Circuit Specification

	2	2
Number of programmable circuits	2	2
End of line resistor value	6800 $\Omega$ 5% Tol. 0.25 W	6800 $\Omega$ 5% Tol. 0.25 W
Line monitored for open and short circuit faults	Yes	Yes
Outputs fused at	500mA	400mA
Max. number of sounders @ 20mA	50	40

## Auxiliary Outputs

	Relay voltage free single pole changeover
Type	Relay voltage free single pole changeover
Max switching current	1A
Max switching voltage	30 V d.c.
Relay 1	Programmed from cause and effect
Relay 2	Programmed from cause and effect
Relay 3	Programmed from cause and effect
Fault	Active when no faults are present
24V Aux Power Output	100mA. Protected by resettable overload circuit.

## Auxiliary Inputs

Input 1	Connect to 0V to trigger. Max input voltage 27V d.c. (non-latching). Programmable from cause and effect.
Input 2	Connect to 0V to trigger. Max input voltage 27V d.c. (non-latching). Programmable from cause and effect.

## Fuses (to IEC - EN60127 Pt2)

Mains Fuse	1A HRC Ceramic 20mm
Battery Fuse	3A F 20mm

## Panel Indicators and Controls

Control buttons	Silence, Reset, Resound, Investigate more information menu
Event scrolling and menu access buttons	Up (1); Down (2); Accept (3); Abort (4)
Liquid Crystal Display	Two lines x 40 characters, backlit
Number of Zonal LED indicators	32   16
Other LED indicators	General Fire, System Energised; Pre-Alarm; Remote Output Activated; Menus Accessed; Disablement; Test; Remote Output Disabled; Silenced; General Fault; System Fault;

## Physical Dimensions

Approx. dimensions of back box (W x H x D)	410 x 250 x 80mm (metal)	380 x 235 x 77mm (plastic). Includes 'lip'.
Approx. dimensions of lid (W x H x D)	439 x 274 x 7mm (metal)	380 x 235 x 16mm (plastic)
Approx. weight (without batteries)	4.5kg	1.9Kg

## Cabling Requirements

Type of cable	Fire resistant screened cable, minimum size 1mm <sup>2</sup>
Max. cable length per loop	1 KM
Connector blocks	Plug-on type, largest acceptable conductor size 1.5mm <sup>2</sup>
Max. allowable loop impedance (each conductor)	20 $\Omega$
Max. cable capacitance	.27 $\mu$ F

## Network Specification

	Via AFP711 network driver card fitted at main panel	Via CFP761 network driver card fitted at main panel
Connection	Via AFP711 network driver card fitted at main panel	Via CFP761 network driver card fitted at main panel
Max. no. of main panels per network	8	8
Max. no. of repeaters per main panel	4	4
Max. cable length per network	1KM (daisychain configuration)	1KM (daisychain configuration)

## PC/Printer Interface

PC connection	Via main panel RS232 molex connector (lead supplied in XFP707 upload/download software kit)
Printer connection	Via main panel RS232 connector block.   Not applicable