1 or 2 loop analogue
addressable fire panels

FIRE! LP.1 A.003 Zone.01
RECEPTION MAIN CORRIDOR

1 or 2 loop
analogue
addressable fire panels

the
AFP
range

POWERFUL, INTUITIVE AND AVAILABLE NOW

C-TEC

the AFP range

of 1 TO 2 LOOP ANALOGUE ADDRESSABLE FIRE ALARM PANELS

Fully compliant with EN54 parts 2 & 4, C-TEC's AFP Range of analogue addressable fire alarm panels offers high performance at a competitive price.

Attractively designed, easy to use and simple to install, the AFP's improved specification now includes delay timers, phased evacuation facilities, adjustable contamination levels, the programming of non-fire events and additional auxiliary inputs and outputs.
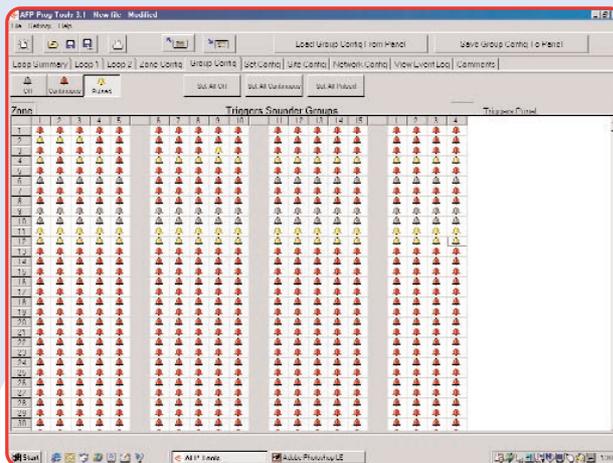
These new features, combined with the panel's comprehensive range of existing features and straightforward programming via the AFP's intuitive upload/download programming software, make it the obvious choice for all one or two loop analogue addressable fire alarm applications.

Panels are supplied with an integral loop driver already fitted and are expandable to two loops via the AFP702 plug-on loop driver. For basic single loop applications that do not require repeater panels, a low-cost non-expandable version of the AFP is also available.

AFP Range Features

—— Fully compliant with EN54 parts 2 & 4.

—— Compatible with Apollo XP95, System Sensor or Nittan protocols.

—— 16 zonal alarm leds, expandable to 32 via the AFP703 extension LED kit.

—— Powerful short circuit protected loop drivers, capable of supporting up to 32 loop powered sounders per loop.

—— Four separate independently programmable conventional sounder circuits.

—— Alert, Reset, Silence and Class Change inputs.

—— Fire, Fault, Remote, Pre-Alarm, Reset and 24V outputs.

—— Comprehensive auto-learn facility allowing the panel to self-configure to devices connected to the loop(s).

—— Integral 24V 3A EN54 switch mode PSU rated @185-260 Va.c, 50/60 Hz (1.5A PSU on AFPE).

—— Programmable sounder / remote output delay facilities (per zone).

—— Adjustable contamination levels.

—— Earth fault monitoring.

—— Phased evacuation facility.

—— Push button access code entry to Access Levels 2 and 3.

—— Sophisticated test and maintenance facilities.

—— Intuitive easy-to-use Windows 95/98/2000 based upload/download PC programme.

—— Space available for 7Ahr VRLA back-up batteries.

—— Easy to read, 80 character back-lit display.

—— 40 characters of custom text per device.

—— 999 event monitoring.

—— Optional AFP Network Driver Card allows the connection of up to 15 AFP repeater panels (this feature is not available on AFPE economy panels).

Sophisticated sounder group mapping can be easily implemented using the AFP's intuitive upload-download programming software (illustrated above). In addition to providing a visual overview of devices connected to the panel (below), the software also includes an editable spreadsheet-style loop summary for even greater flexibility.

afp technical specifications
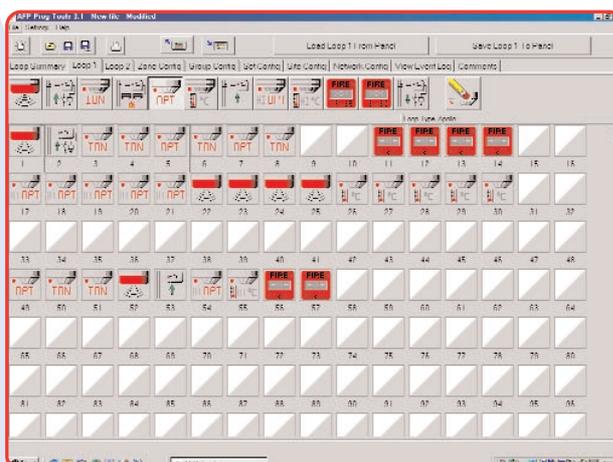
Power Supply Specification	AFP701/X, AFP701/W, AFP701/N standard 1 loop, expands to 2 loops	AFP701E/X, AFP701E/W, AFP701E/N economy single loop, non-expandable
Mains supply voltage	230V a.c. ± 10% 50/60Hz	230V a.± 10% 50/60Hz
Internal power supply	27V d.c Nominal	27V d.c Nominal
Total output current limited to	3A @ 230 V a.c.	1.5A @ 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	7.0 Ahr VRLA
Quiescent current drain (1 loop unloaded)	< 80mA	< 80mA
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		
Max. number of loop drivers allowed	2	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	350mA	350mA
Max. number of addressable devices per loop (Apollo XP95)	126	126
Max. number of addressable devices per loop (System Sensor)	99 sensors + 60 modules	99 sensors + 60 modules
Max. number of addressable devices per loop (Nittan)	126	126
Max. number of loop powered sounders per loop (all protocols)	32	32
Number of programmable sounder groups	15	15
Number of programmable output sets	32	32

Conventional Sounder Circuit Specification		
Number of programmable circuits	4	4
End of line resistor value	6800 Ω 5% Tol. 0.25 W	6800 Ω 5% Tol. 0.25 W
Line monitored for open and short circuit faults	Yes	Yes
Outputs fused at	1A	1A
Max. number of bells @ 25mA	120	60
Max. number of sounders @ 20mA	150	75

Auxiliary Outputs	
Type	Open collector
Max sink current	100mA each (300mA total)
Max open circuit voltage	27 V d.c
Reset output	Active during reset cycle
Remote output	Active during any fire condition (can be zonally delayed or isolated)
Pre-Alarm output	Active during any pre-alarm condition
Fire 1	Active during any fire condition
Fire 2	Active during any fire condition (except silenced fire)
Fault	Active when no faults are present - failsafe to open circuit
24V Aux Power Output	1A fused

Auxiliary Inputs	
Reset	Connect to 0V to trigger. Max input voltage 27V d.c. (non-latching)
Silence	Connect to 0V to trigger. Max input voltage 27V d.c (non-latching)
Class change (Evacuate - continuous sounders)	Connect to 0V to trigger. Max input voltage 27V d.c (non-latching)
Alert (Phased Evacuate - pulsed sounders)	Connect to 0V to trigger. Max input voltage 27V d.c (non-latching)

Fuses (to IEC - EN60127 Pt2)	
Mains Fuse	1A HRC Ceramic 20mm
Sounder Outputs (F1, F2, F3, F4)	1A F 20mm
Auxiliary Output (F5)	1A F 20mm
Battery Fuse	3A F 20mm

Panel Indicators and Controls	
Control buttons	Silence, Reset and Evacuate.
Event scrolling and menu access buttons	Up (1); Down (2); Accept (3); Abort (4)
Liquid Crystal Display	Two lines x 40 characters, backlit
LED indicators	16 Zonal LEDs (expandable to 32); 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 (WxHxD)	410 x 250 x 80mm (metal)
Approx. dimensions of lid (WxHxD)	439 x 274 x 7mm (plastic); 435 x 270 x 5mm (metal);
Weight (without batteries)	4.5kg

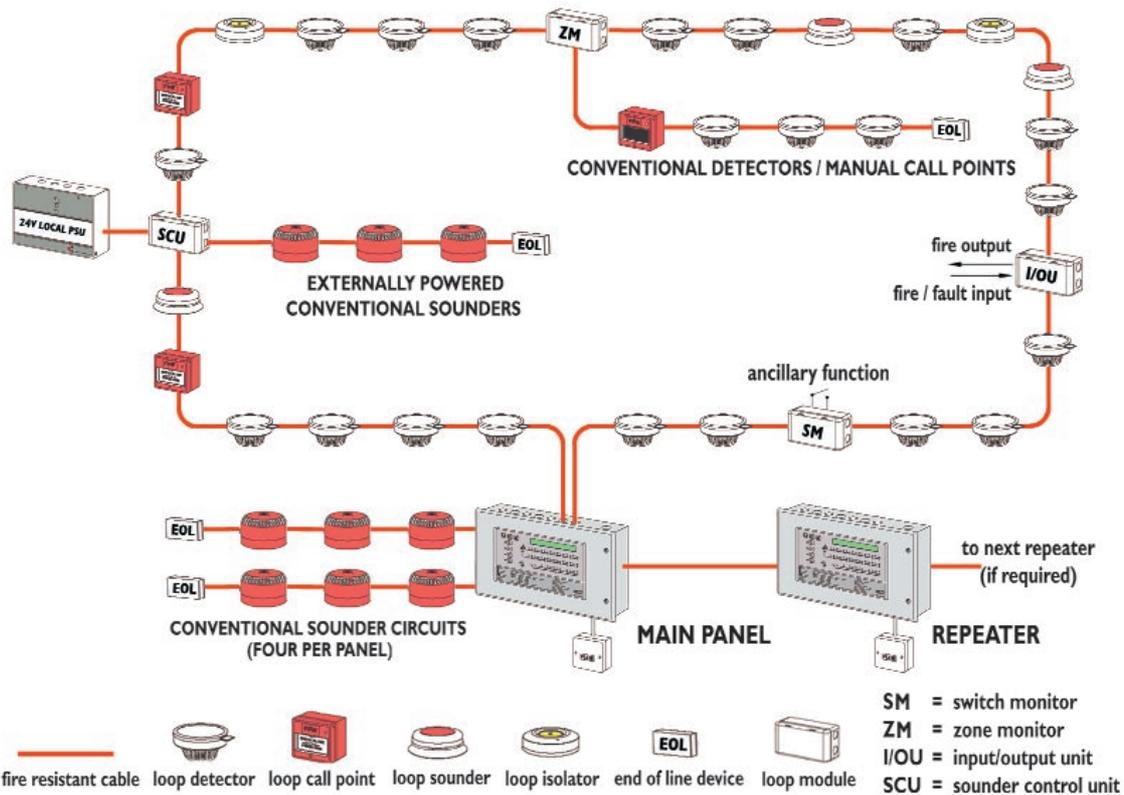| Cabling Requirements	
Type of cable	Fire resistant screened cable, minimum size 1mm²
Max. cable length per loop	1 KM
Connector blocks	Plug-on type, largest acceptable conductor size 1.5mm²
Max. allowable loop impedance (each conductor)	20 Ω
Max. cable capacitance	.27μF

Repeater Specification		
Repeater connection	Via AFP711 Network Driver Card fitted to Main panel's RS485 port	not applicable
Max. number. of repeaters per system	15	not applicable
Max. cable length per repeater network	1 KM (daisy chain configuration)	not applicable

PC/Printer Interface	
PC connection	Via main panel RS232 molex connector (lead supplied in AFP707 upload/download software kit)
Printer connection	Via main panel RS232 connector block. An AFP709 Off-Board Printer Kit c/w isolation socket is available

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Typical Wiring

CONVENTIONAL DETECTORS / MANUAL CALL POINTS

24V LOCAL PSU — SCU

EXTERNALLY POWERED CONVENTIONAL SOUNDERS

fire output
fire / fault input — I/OU

ancillary function — SM

CONVENTIONAL SOUNDER CIRCUITS (FOUR PER PANEL)

MAIN PANEL — REPEATER

to next repeater (if required)

SM = switch monitor
ZM = zone monitor
I/OU = input/output unit
SCU = sounder control unit

fire resistant cable | loop detector | loop call point | loop sounder | loop isolator | end of line device | loop module

Part Numbers

Apollo XP95 Protocol Panels

AFP701E/X	AFP 16 zone economy single loop panel, does not extend, Apollo XP95 protocol, plastic lid, metal base
AFP701/X	AFP 16 zone single loop panel, extends to 2 loops, Apollo XP95 protocol, plastic lid, metal base
AFP701/XM	AFP 16 zone single loop panel, extends to 2 loops, Apollo XP95 protocol, metal lid, metal base
AFP702/X	AFP loop driver card, Apollo XP95 protocol

System Sensor Protocol Panels

AFP701E/W	AFP 16 zone economy single loop panel, does not extend, System Sensor protocol, plastic lid, metal base
AFP701/W	AFP 16 zone single loop panel, extends to 2 loops, System Sensor protocol, plastic lid, metal base
AFP701/WM	AFP 16 zone single loop panel, extends to 2 loops, System Sensor protocol, metal lid, metal base
AFP702/W	AFP loop driver card, System Sensor protocol

Nittan Protocol Panels

AFP701E/N	AFP 16 zone economy single loop panel, does not extend, Nittan protocol, plastic lid, metal base
AFP701/N	AFP 16 zone single loop panel, extends to 2 loops, Nittan protocol, plastic lid, metal base
AFP701/NM	AFP 16 zone single loop panel, extends to 2 loops, Nittan protocol, metal lid, metal base
AFP702/N	AFP loop driver card, Nittan protocol

AFP Range Ancillaries (all protocols)

AFP385	AFP flush mounting bezel
AFP703	AFP 16 zone extension LED kit
AFP707	AFP upload/download software kit c/w lead
AFP709	AFP off-board printer kit
AFP710	AFP 16 zone fully functional repeater plastic lid, metal base, up to 15 per system
AFP711	AFP network driver card, one per repeater system - fit at Master

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British Fire Protection Systems Association

LPCB

NATIONAL ACCREDITATION OF CERTIFICATION BODIES

Quality System Certificate No: 176
Assessed to ISO9001 : 1994

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