



## FP 1-14 Zone Conventional Fire Panel to BS5839-4

- Fully compliant with BS 5839 Part 4
- Lift-off lid for easy first fix and maintenance
- Two conventional sounder circuits.
- Built-in 24V power supply and battery charger
- Optional head removal monitoring facility
- Separate indicators for open and short circuit fault, sounder fault and battery/power supply fault
- Non-latching 'class change' sounder input, latching fire and non-latching fault outputs (available via optional expansion loom)
- Fault buzzer mute facility
- Space available for the rated capacity of VRLA batteries
- Short circuit = fire facility (pre-1980 BS, no resistors in call points), selectable on a zone by zone basis - ideal for retro-installations
- One man walk test and zone isolate facility (not on FF380/CON)
- Ancillary connections for repeater panels and other add-ons including fault relay modules, fire relay modules, sounder delay relay modules, sounder extender kits, etc (not on FF380/CON)
- Fully compatible with the Context Plus UL-listed Series 65A range of conventional detectors, the ActiV range of Intertek certified conventional detectors and the Ei range of wireless detectors and ancillaries

### Order codes

\* ITEMS MARKED WITH AN ASTERISK ARE NOT COMPATIBLE WITH THE FF380/CON SINGLE ZONE PANEL

FF380/CON	EFP1 SINGLE ZONE PANEL, DOES NOT EXTEND	FF374FR*	FP FAULT RELAY MODULE*
FF382/CON	FP 2 ZONE PANEL, DOES NOT EXTEND	FF374DFR*	FP FIRE RELAY MODULE*
FF384/CON	FP 4 ZONE ECONOMY PANEL, DOES NOT EXTEND	FF374DT*	FP SOUNDER DELAY MODULE*
FF384-2/CON	FP 4 ZONE PANEL, EXTENDABLE TO 6 ZONES USING A FF387Z-2 2 ZONE EXTENDER CARD)	FF380X	EFPX EXPANSION LOOM (FOR FF380/CON ONLY)
FF388/CON	FP 8 ZONE ECONOMY PANEL, DOES NOT EXTEND	BF378	EMU END OF LINE MONITORING UNIT
FF388-2/CON	FP 8 ZONE PANEL, EXTENDABLE TO 10, 12 OR 14 ZONES USING FF387Z-2 TWO ZONE EXTENDER CARDS	BF378M	MIMIMU END OF LINE MONITORING UNIT
FF387Z-2	FP 2 ZONE EXTENDER PCB KIT	BF379	SCHOTTKY DIODES, 10 PACK (BYV1060/SR160)
FF396-2	FP 10 ZONE REPEATER PANEL	FF502P	FOUR ZONE SOUNDER EXTENDER KIT
FF398-2	FP 20 ZONE REPEATER PANEL	FF379	FLUSH BEZEL FOR FF382/CON & FF384/CON PANELS
FF374X*	FPM EXPANSION LOOM*	FF385	FLUSH BEZEL FOR FF384-2/CON & FF388/CON PANELS & FP REPEATER PANELS
		FF387	FLUSH BEZEL FOR FF388-2/CON PANELS

# FP Technical Specification

## Power Supply Specification

	FF380/CON	FF382/CON FF384/CON	FF384-2/CON FF388/CON	FF388-2/CON
Mains supply voltage	230V a.c. ± 10% 50/60 Hz	230V a.c. ± 10% 50/60 Hz	230V a.c. ± 10% 50/60 Hz	230V a.c. ± 10% 50/60 Hz
Internal power supply	27V d.c. nominal	27V d.c. nominal	27V d.c. nominal	27V d.c. nominal
Total output current limited to	400mA @ 230 V a.c.	800mA @ 230 V a.c.	1.4A @ 230 V a.c.	3A @ 230 V a.c.
Supply and battery charger monitored for failure	Yes	Yes	Yes	Yes
Batteries monitored for disconnection and failure	Yes	Yes	Yes	Yes

## Detector Circuit Specification

	1	2 (FF382/CON) 4 (FF384/CON)	4 (FF384-2/CON, extendable to 6) 8 (FF388/CON)	8 (extendable to 10, 12 or 14)
Number of circuits				
Connector blocks	Line monitored for open and short circuit faults			
	Yes	Yes	Yes	Yes
Line monitored for head out/detector removed faults	Yes - if optional BF378 or BF378M End of Line Monitoring unit (not supplied) is fitted in place of end of line resistor			
End of line resistor value (supplied)	6800 ½ 5% Tol. 0.25W	6800 ½ 5% Tol. 0.25 W	6800 ½ 5% Tol. 0.25 W	6800 ½ 5% Tol. 0.25 W
Detector continuity diodes	Silicon 1N4001 or Schottky type (required if BF378 or BF378M End of Line Monitoring Unit fitted to show head out faults)			
Call point resistor value (not supplied)	470 - 680 ½ 0.5 W	470 - 680 ½ 0.5 W	470 - 680 ½ 0.5 W	470 - 680 ½ 0.5 W
Max. number of detectors per zone	20 (max detector current 2mA)	20 (max detector current 2mA)	20 (max detector current 2mA)	20 (max detector current 2mA)
Max. number of manual call points per zone	No limit	No limit	No limit	No limit

## Sounder Circuit Specification

	2	2	2	2
Number of circuits				
Connector blocks	Heavy duty Niglon-type, largest acceptable conductor size 2.5mm <sup>2</sup>			
End of line resistor value	6800 ½ 5% Tol. 0.25 W	6800 ½ 5% Tol. 0.25 W	6800 ½ 5% Tol. 0.25 W	6800 ½ 5% Tol. 0.25 W
Line monitored for open and short circuit faults	Yes	Yes	Yes	Yes
Outputs fused at	400mA	1A	1A	1.6A
Max. total output current to all outputs	400mA	800mA	1.4A	3A
Max. number of bells at 25mA	16	32	56	120
Max. number of sounders at 20mA	20	40	70	150
Volt free relay contacts (active when sounders active)	n/a	Yes, 1A 30V d.c. max	Yes, 1A 30V d.c. max	Yes, 1A 30V d.c. max

## Auxiliary Inputs / Outputs

Available via optional expansion looms (not supplied)	Class change input, fire output and fault output via EFPX loom	Class change input, zone 1 & zone 2 fire outputs, fault output and reset output via FPX loom. Self-contained fire, fault & sounder delay relay modules are also available (1 per panel instead of FPX loom)
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## Fuses (to IEC - EN60127 Pt2)

Mains terminal block	125mA T 20mm	200mA T 20mm	400mA T 20mm	630mA T 20mm
Sounder outputs 400mA F 20mm	(F1, F2)	1A F 20mm (F2, F3)	1A F 20mm (F2, F3)	1.6A F 20mm (F2, F3)
Auxiliary output	n/a	1A F 20mm (F4)	1A F 20mm (F4)	1A F 20mm (F4)
Battery fuse	1A F 20mm (F3)	1.6A F 20mm (F1)	1.6A F 20mm (F1)	3A F 20mm (F1)

## Panel Indicators and Controls

External indicators	Mains On; Zone Fire; Zone Fault; Sounder Fault; Battery/Power Supply Fault	
Internal Indicators	O/C Fault; S/C Fault	O/C Fault; S/C fault; Zone Isolated; Engineer Test Selected
External controls (keyswitch operated)	Reset; Silence Alarm/Fault	Reset/ Resound/Test Zone Lamps; Evacuate; Silence Alarm Sounders; Sounders;
		Evacuate Silence Fault Sounders
Internal controls	Revert to short circuit = fire; Revert to short circuit = fire; One man detector test; Zone isolate	

## Dimensions

Approx. dimensions of enclosure (W x H x D)	271 x 200 x 70mm	322 x 267 x 92mm	405 x 267 x 92mm	521 x 334 x 140mm
Weight (without batteries)	2.3 kg	4.3kg	5.0 kg	9.2 kg

## Repeater Specification

Max. number of repeaters	n/a	Three repeaters per main panel. Repeater are available with 10 or 20 zones.
Repeater wiring	n/a	Five control wires plus one extra wire per zone being repeated; max cable length 200m

## Battery Stand-By Times

	FF380/CON	FF382/CON	FF384/CON	FF384-2/CON	FF388/CON	FF388-2/CON
Quiescent current	25mA	40mA	50mA	50mA	70mA	70mA
Max. load current	0.4A	0.8A	0.8A	1.4A	1.4A	3.0A
Stand-by time in hours using 1.2 Ahr batteries	48	-	-	-	-	-
Stand-by time in hours using 2.0 Ahr batteries	80	40	32	26	-	-
Stand-by time in hours using 2.6 Ahr batteries	-	55	44	38	27	-
Stand-by time in hours using 4.0 Ahr batteries	-	90	72	66	47	36
Stand-by time in hours using 6.0 Ahr batteries	-	-	-	106	75	64
Stand-by time in hours using 10.0 Ahr batteries	-	-	-	-	-	121

The quiescent currents are given for the following conditions - no mains supply, fault beeper active, no aux. output connections, end of line devices and resistors only fitted to detector and sounder loops. The battery stand-by times are guidelines only based on the above conditions. Additional loads that increase the quiescent current in the normal state and sounder loads must be considered when calculating stand-by time. Batteries in poor condition greatly reduce stand-by time.