

fp range



1-14 zone conventional
fire alarm control panels
and ancillaries



DURABLE, RELIABLE, AFFORDABLE.

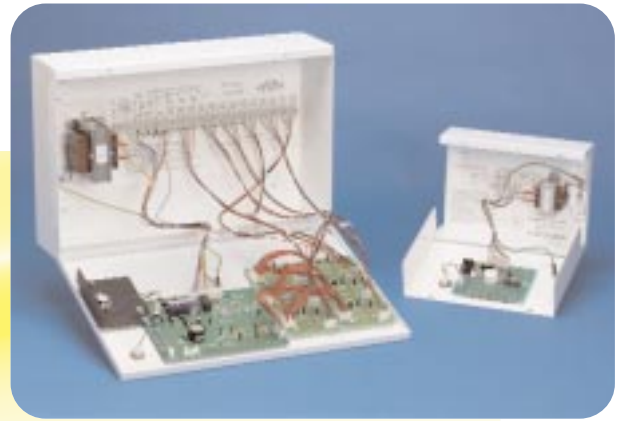


fp range

of 1-14 ZONE
CONVENTIONAL
FIRE ALARM
CONTROL PANELS

C-TEC's FP Range of conventional fire alarm control panels is one of the most robust and cost-effective available.

Fully compliant with BS 5839 part 4, the range encompasses no less than ten different variants, covering 1 to 14 zones.



FP Range Features

- Fully compliant with BS 5839 Part 4
- Lift-off lid for easy first fix and maintenance
- Attractive easy-to-clean polycarbonate front label
- Heavy-duty base connections
- Robust metal lid and metal back box
- Ultra-bright, long-life LED indicators
- Built-in 24V power supply and battery charger
- Optional head removal facility for compliance with BS 5839 Part 1
- Compatibility with virtually all known conventional smoke and heat detector ranges
- True three wire operation of sounder and detector circuits (0v is common) for considerable cost savings on installation
- 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 for retro-installations
- True battery monitoring circuit
- One man walk test and zone isolate facility (not available on EFP1)
- Ancillary connections for repeater panels and other system add- including fault relay modules, fire relay modules, sounder delay relay modules, sounder extender kits, etc (not available on EFP1)
- Easy to follow installation instructions and log book
- Multilingual variants available (subject to quantities)

The size, durability and flexibility of the range makes it ideal for use in all types of commercial and residential property including small shops, factories, schools, warehouses, offices and houses in multiple occupation.

Often referred to as 'the installer's choice', easy-to-follow wiring instructions are printed adjacent to the terminals of all variants and a lift-off lid guarantees an easy first fix and straightforward maintenance.

The panel's broad compatibility with virtually all known smoke and heat detector ranges and its ability to interpret a short circuit in any zone(s) as a fire or fault condition make it particularly useful for retro-installations.

An optional head removal facility (which utilises C-TEC's BF378 range of end-of-line monitoring units) is also available, making the FP fully compliant with the head removal requirements of BS 5839 part 1.



Power Supply Specification

	EFP1	FP2, FP2E	FP4, FP6, FP8E	FP8, FP10, FP12, FP14
Mains supply voltage	230V a.c. \pm 10% 50/60 Hz	230V a.c. \pm 10% 50/60 Hz	230V a.c. \pm 10% 50/60 Hz	230V a.c. \pm 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

Number of circuits	1 (EFP1, non-extendable)	2 (FP2, non-extendable) 4 (FP4E, non-extendable)	4 (FP4, extendable to 6) 6 (FP6, non-extendable) 8 (FP8E, non-extendable)	8 (FP8, extendable to 14) 10 (FP10, extendable to 14) 12 (FP12, extendable to 14) 14 (FP14, non-extendable)
Connector blocks	Heavy duty Niglon-type, largest acceptable conductor size 2.5mm ²			
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 Ω 5% Tol. 0.25W	6800 Ω 5% Tol. 0.25 W	6800 Ω 5% Tol. 0.25 W	6800 Ω 5% Tol. 0.25 W
Detector continuity diodes	Silicon 1N4001 or Schottky type (required if BF378 or BF378M End of Line Monitoring Unit is fitted to show head out faults)			
Call point resistor value (not supplied)	470 - 680 Ω 0.5 W	470 - 680 Ω 0.5 W	470 - 680 Ω 0.5 W	470 - 680 Ω 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

Number of circuits	2	2	2	2
Connector blocks	Heavy duty Niglon-type, largest acceptable conductor size 2.5mm ²			
End of line resistor value	6800 Ω 5% Tol. 0.25 W	6800 Ω 5% Tol. 0.25 W	6800 Ω 5% Tol. 0.25 W	6800 Ω 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 Sounders; Evacuate	Reset/ Resound/Test Zone Lamps; Evacuate; Silence Alarm Sounders; 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

	EFP1	FP2	FP4E	FP4	FP6	FP8E	FP8	FP10	FP12	FP14
Quiescent current	25mA	40mA	50mA	50mA	60mA	70mA	70mA	80mA	90m	100mA
Max. load current	0.4A	0.8A	0.8A	1.4A	1.4A	1.4A	3.0A	3.0A	3.0A	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	32	27	-	-	-	-
Stand-by time in hours using 4.0 Ahr batteries	-	90	72	66	55	47	36	31	28	25
Stand-by time in hours using 6.0 Ahr batteries	-	-	-	106	88	75	64	56	50	45
Stand-by time in hours using 10.0 Ahr batteries	-	-	-	-	-	-	121	106	94	85

The quiescent current given is for the following conditions - mains supply failed, fault beeper muted, no aux. output connections, detector and sounder end of line devices fitted, no other loads supplied by the panel. The battery stand-by times are guidelines only based on the above conditions and a full sounder load for 30 minutes. Additional loads that increase the quiescent current in the normal state must be considered when calculating stand-by time. The fault beeper being active will add 10mA and reduced sounder loads will increase the stand-by time. Batteries in poor condition greatly reduce stand-by time.

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FP Range Panels

FF380-2	EFP1 single zone fire panel, does not extend	FF390-2	FP 10 zone fire panel, extends to 14 zones
FF382-2	FP 2 zone fire panel, does not extend	FF392-2	FP 12 zone fire panel, extends to 14 zones
FF384-3	FP 4 zone economy fire panel, does not extend	FF394-2	FP 14 zone fire panel, does not extend
FF384-2	FP 4 zone fire panel, extends to 6 zones	FF387Z-2	FP 2 zone extender PCB kit (use to increase number of zones on FP panels)
FF386-2	FP 6 zone fire panel, does not extend	FF396-2	FP 10 zone repeater panel
FF388-3	FP 8 zone economy fire panel, does not extend	FF398-2	FP 20 zone repeater panel
FF388-2	FP 8 zone fire panel, extends to 14 zones		

FP Range Ancillaries

FF374X	FPX expansion loom (not compatible with EFP1)	BF379	Schottky diodes, 10 pack (BYV1060/SR160)
FF374FR	FP fault relay module (not compatible with EFP1)	FF502P	Four zone sounder extender kit
FF374DFR	FP fire relay module (not compatible with EFP1)	FF379	Flush bezel for use with FP2 and FP4E panels
FF374DT	FP sounder delay module (not compatible with EFP1)	FF385	Flush bezel for use with FP4, FP6, FP8E and FP repeater panels
FF380X	EFPX expansion loom (for use with EFP1 only)	FF387	Flush bezel for use with FP8, FP10, FP12 and FP14 panels
BF378	EMU end of line 'head out' monitoring unit		
BF378M	MIMIMU miniature end of line 'head out' monitoring unit		

Note: The EFP1 is designed to be surface mounted only

Battery Packs

BC283/2	24V 1.2 AmpHr battery pack
BC284/2	24V 2.1 AmpHr battery pack
BC285/2	24V 2.8 AmpHr battery pack
BC286/2	24V 7.0 AmpHr battery pack

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