

Eurofire Sensa 2-wire fire panels



Eurofire Sensa is a range of conventional (non-addressable) fire detection panels with extensive safety, technical and practical features for the installer and user. Eurofire Sensa panels are designed to comply with the European Standard EN54 Parts 2 and 4 and are suitable for BS 5839-1:2002 and BS 5839-6:2004 installations.

Panels are available in 4, 8, 12 or 16 zones of fire detection cover, with powerful and flexible setup, control and display capabilities and are configured to operate with Apollo AlarmSense devices.

The 2-wire convention uses one pair of wires for the connection of Sensa-compatible devices (detectors, manual call points and alarm sounders). This gives the scheme designer a greater flexibility of choice, whilst retaining compliance with the relevant standards. Benefits can be seen in having reduced field wiring costs and time saving with ease of installation.

Panels are supplied as a complete package, with all end of line devices, batteries and a logbook included.

Benefits and features

Comprehensive zone coverage:
Available in 4, 8, 12 or 16 zone models.

Zone capacity:
Nominally 30 devices per zone.

Soft select:

Non-latching or latching zones:
The non-latching zone feature allows a better integrity connection to existing systems (other manufacture). This prevents lockout and allows panels to be reset more readily (the panel being connected to must have a spare zone and auxiliary contacts with a volt-free pair). Short circuit fire or fault for older systems.

Output wiring:

2-wire configuration to the zones, giving reduced wiring cost.

Outputs:

4 alarm outputs and auxiliary volt-free contacts, which are programmable for continuous, pulsing or delayed operation. Fault volt-free relay contacts.

Sounder delay activation:

Eurofire includes a sounder 'delay-on' facility. This allows the user to programme chosen sounders or beacons to activate at a later moment. This is suited to applications where it is beneficial not to have undue panic, such as in bars or Soft Play centres.

2-wire and 4-wire system integration:

The Eurofire system has the ability to recognise and operate a 4-wire zone, which can potentially save on wiring when a refurbishment is undertaken. For example in a small hotel or guesthouse where no sounders or sounder-beacons are fitted in bedrooms, a bedroom zone can be the 2-wire format, with detectors and alarms wired on the same pair. Other existing 4-wire zones in the building can remain if desired (it will be necessary to check for sounder tone compatibility).

Networking capability:

Coverage in larger building complexes can be achieved by linking Eurofire EN54 panels and repeaters together via a 'CAN Connect' link. It is also possible to make more power available for sounder circuits, or save on field wiring.

Panel Display

The Eurofire Sensa panel includes an easy to reference display with LCD screen allowing for up to four lines of text, with text programmable for each zone. 6 buttons are included on the front of the panel which can be used to access the following functions:

- Lamp test, silence alarms, silence buzzer
- User zone, sounder and 2-wire sounder isolation
- Walk and alarm test facility with mute option
- 99-event history log that stores any events with time and date stamp, for the user to scroll
- Configurable system message for the user with normal time and date displayed

The panel also features indicator LEDs which advise the current state of the fire detection system, and give a clear signal of fire or fault in any particular zone.

Further functionality includes the facility to review event logs, to override any pre-set alarm delays, and to enable sounding the evacuation to all zones.



Indicator details

The panel includes indicators for information, fault, fire and 'fire & fault', whereby specific panel LEDs will illuminate or flash to establish the zone affected.

Networking capability

Fire detection coverage in a larger building complex can be achieved by linking Eurofire EN54 panels and repeaters together via a 'CAN Connect' link. ('CAN Connect' is a readily available communications protocol.) It is also possible to make more power available for sounder circuits (additional 4), or save on field wiring:

Scenario: In a building, one panel might be sited in the office area and one in the warehouse area. The zones for each area are wired to their respective panels. Network the panels and the office unit has full visibility of the building. It may be necessary to use a higher rated cable and the Emergi-Lite network card (please contact Technical sales for further guidance).

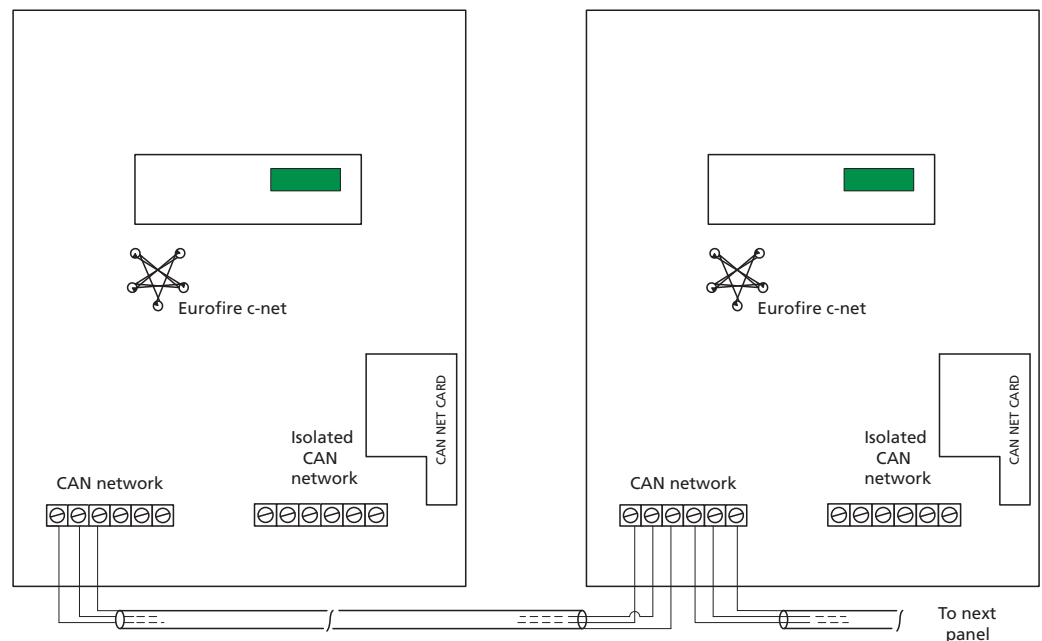
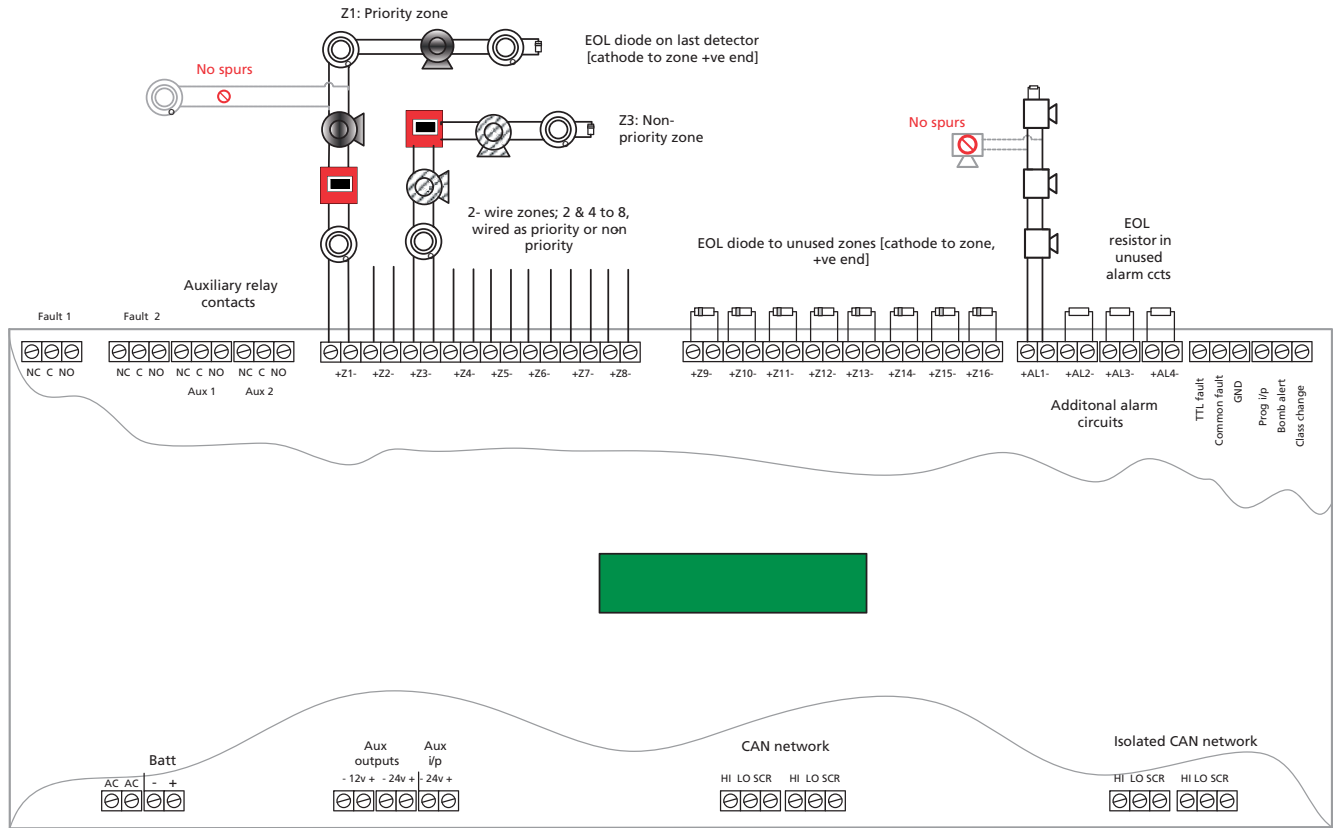


Illustration: Network of Eurofire panels, in star format [wired to the CAN network facility]

Eurofire Sensa 2-wire panels

Connection diagram

The diagram below illustrates a Eurofire panel connected to detectors, sounders, and call points, with settings for both 'priority' and non-priority'.



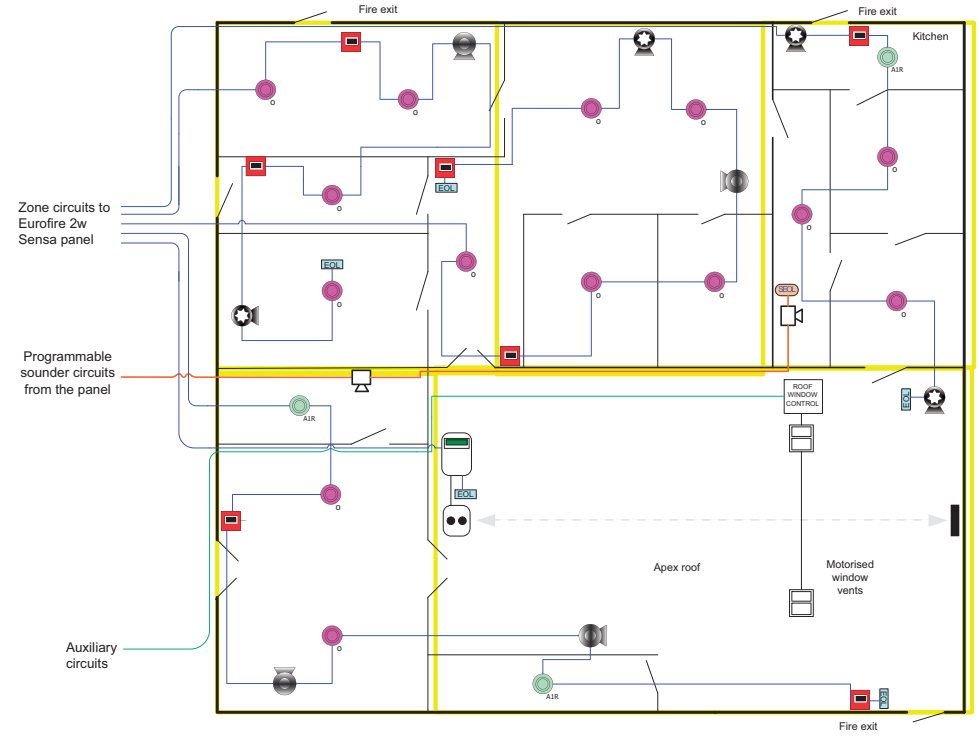
- Key:
- Call point -2w
 - Priority 2w sounder
 - Standard sounder
 - Optical 2w detector
 - 2w Sounder, set as non-priority

Eurofire Sensa 2 wire: Illustration of zonal wiring

Eurofire 2-wire zonal layout

The illustration below shows a potential scheme layout for a Eurofire panel, over 5 active zones, with 1 additional alarm circuit.

- Key:
- Call point
 - Optical smoke detector
 - Heat detector
 - Sounder (priority)
 - Sounder-beacon (priority)
 - Beam detector set
 - End of line device -detector circuit
 - End of line device -alarm circuit
 - Zone: detection circuit wiring
 - Alarm circuit wiring





Eurofire Sensa, 2-wire panel technical specification

PRODUCT ORDER CODE	FEWN-4	FEWN-8	FEWN-12	FEWN-16
No. of zones	4 Zone	8 Zone	12 Zone	16 Zone
Detectors per zone		30 per zone, maximum		
Sounders per zone [1]		30 per zone, maximum		
Sounder-Beacons per zone [2]		15 per zone, maximum		
Zone Sounder Current (panel total)		1.25A max (see notes 1 & 2)		
Sounder current		5mA at either low (70dBA) or high (87dBA) output		
Sounders per panel		250		
Sounder-Beacon Current		9mA at either low (70dBA) or high (87dBA) output		
Sounder-Beacons per panel		135		
Inputs		Class change, Bomb Alert, Programmable		
Display		4 x 20 character LCD + zone fire & fault LEDs and system LEDs		
Mains input voltage		230Vac +10% -6% 50Hz		
Output auxiliary voltage, DC		24Vdc @ 250mA 12Vdc @ 250mA		
Battery size		12V 7AH x 2 (connected in series)		
Battery standby		Minimum 24 hours (please contact technical sales for further information.)		
Construction:		Metal back box with moulded polycarbonate front panel in cool grey		
Panel dimensions hwd (mm)		469 x 373 x 103		
Detector & call point compatibility		Sensa – Alarmsense detectors, call points and alarm devices.		
Programmable features		Extensive via buttons and LCD display		
CAN Network		Panel and repeater combinations via CAN 2.0b link		
Outputs:				
Alarm Lines		4		
Alarm current total		1.25A- zone sounder current, see note 3		
Auxiliary outputs		2 sets of volt free contacts, rated @ 2A 30Vdc		
Fault outputs		2 sets of volt free contacts, rated @ 2A 30Vdc		

Notes:

[1] – Version 2 sounders only

[2] – Using version 2 sounder-beacons only

[3] – Total Panel Alarm Current is 1.25A. The total zone sounder current must be taken into account when deciding how much load is available for alarm lines AL1 – 4

For example: a maximum of 250 sounders (5mA each) or 135 sounder beacons (9mA each) can be loaded onto the system.

Warning: do not use FAP6 detectors on Alarmsense systems. Although they would appear to work initially, using them could cause severe system malfunction in the longer term. Also be aware that if used with the Sounder/Sounder Beacon Bases the non-priority function will not operate correctly.

Eurofire Repeater panel

PRODUCT ORDER CODE	FEUN-RP
Connections	2-core for data from the main panel and 2-core for 24 Vdc power
Display	4 x 20 character LCD with Zone, Fire and Fault LEDs
Inputs	Data and DC supply inputs from the main panel (repeater loading must be included when calculating load at the main panel)
Outputs	4 programmable alarm outputs (load to be included in main panel alarm load)
Construction	Metal back box with moulded polycarbonate front panel in cool grey
Dimensions hwd (mm)	469 x 373 x 103

To Order

STANDARD ORDER CODE	DESCRIPTION
FEWN-4	Eurofire 4 Zone Panel
FEWN-8	Eurofire 8 Zone Panel
FEWN-12	Eurofire 12 Zone Panel
FEWN-16	Eurofire 16 Zone Panel
OPTIONS	
Suffix LD	Lockable door option for Eurofire Panel
FEUN-RP	Eurofire Repeater Panel

ACCESSORIES

F4ALMB	4 way Alarm Extender
F4COB	Relay Unit, 4 pole
FEUN-EOL-KIT	End of Line Component Kit
FEUN-NETCAN	CAN Isolator Assembly
FEUR-BG	Semi-recessing bezel grey
FEUN-SPARES	Eurofire Spares Pack