CHANNEL
SAFETY SYSTEMS

Sabre Pro

2 wire conventional alarm system
from Channel Safety Systems

BAFE

FIA
Fire Industry Association

Sabre Pro

2 wire conventional alarm system

The Sabre Pro is a conventional 2-wire fire alarm system that is cost-effective and adaptable to a variety of applications, big or small making it the natural choice for many smaller applications.

Using the multipoint detector with sounder as part of the Sabre Pro 2-wire fire alarm system means that when a detector is wired in, a sounder is also, with no extra wiring required.

The repeater panel is connected directly to the fire alarm panel (4 or 8 zone only) and reports events which occur on the fire alarm panel. It can also perform system controls over the network (i.e. Silence Alarms, Reset, Sound Alarms & Silence Buzzer) A Maximum of 8 repeater panels can be connected to a single control panel
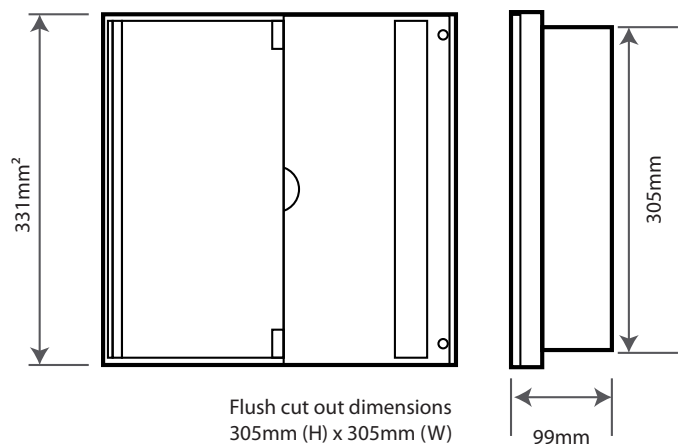
Features

- Key or code access for control of user functions
- LCD screen with zonal identification text
- 500 Event log & Up to 72 hour Standby
- Break glass identification on panel to differentiate between call point or detector alarm
- 2 auxiliary sounder circuits
- "Alarm confirmation" Pre alarm facility
- Control panel warning for head contamination indication on panel display to signal that optical chamber is contaminated
- Complies to BS5839 and EN54 part 4
- Multi-function walk test facility
- A wide range of input and output functions to make system interfacing simple
- Dual purpose flush or surface housing

Image shows from left to right F/CHSA/2/PRO, F/CHSA/SHSB/ PRO & F/CHSA/SHS/PRO

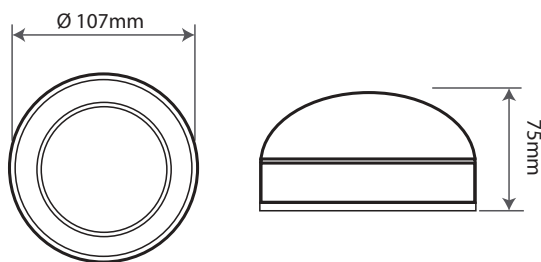| PRODUCT CODE	DESCRIPTION
F/CHSA/2/PRO/KIT	Sabre Pro 2 zone fire alarm kit complete with x2 call points, x6 optical smoke/heat sounders, 1 smoke/heat sounder, strobe and 1x head removal tool
F/CHSA/4/PRO/KIT	Sabre Pro 4 zone fire alarm kit complete with x2 call points, x6 optical smoke/heat sounders, 1 smoke/heat sounder, strobe and 1x head removal tool
F/CHSA/8/PRO/KIT	Sabre Pro 8 zone fire alarm kit complete with x2 call points, x6 optical smoke/heat sounders, 1 smoke/heat sounder, strobe and 1x head removal tool
F/CHSA/2/PRO	Sabre Pro 2 zone dual wire fire alarm panel (requires 24/3 battery)
F/CHSA/4/PRO	Sabre Pro 4 zone dual wire fire alarm panel (requires 24/3 battery)
F/CHSA/8/PRO	Sabre Pro 8 zone dual wire fire alarm panel (requires 24/3 battery)
F/CHSA/PRO/R	Sabre Pro repeater panel
F/CH24/3	24 V 3 AH battery

SPECIFICATIONS	
Operating Temperature	+5°C to +40°C
Mains Supply Range	230VAC, +10%, -15%, 50/60Hz
Standby Battery Requirement	2 x 3.3Ah 12V Sealed Lead Acid
Number of Zones	2 / 4 / 8
Max Zone Length	500 Metres
Zone Loading	16 DLU Max
Zone Operating	Voltage: Nominal: 29.9VDC
Max Zone Current	250mA
LCD Display	4 Lines of 20 Characters
Zone Labels	12 Characters
Event Log	500 Events
Input	1 x Resistance Monitored Input (3k3 EOL,680R Firing Resistor) 2 x Un-Monitored Inputs
Fault Output	1 x Volt Free Relay (30VDC @ 0.2A Max)
Fire Outputs	1 x Volt Free Relay (30VDC @ 0.2A Max) 2 x 24V Conventional Sounder/ Remote Fire Circuits (10K EOL, 250mA Max)
Battery Charger	170 mA current limiter
Battery (reverse polarity)	3.15A F 20mm (in line with battery leads) Glass
Weight (excluding batteries)	2 Zone - 2.25 kg 4 Zone - 2.28 kg 8 Zone - 2.36 kg

331mm²

305mm

Flush cut out dimensions
305mm (H) x 305mm (W)

99mm

ASD Multipoint Detectors

Image shows from left to right
F/CHSA/SHSB/PRO & F/CHSA/SHS/PRO

Ø 107mm

75mm

The Multipoint ASD detectors are a plug-in type smoke detector that utilises a photo-electric sensing chamber to make a measurement corresponding to smoke density.

The device also incorporates a thermistor sensing circuit to allow for accurate heat measurement. These elements allow the device to be configured to a smoke, heat or combined setting. This device is only compatible with the Sabre Pro control panels (and their associated detection and alarm equipment) and may also incorporate a sounder beacon.

To ensure the detection capabilities of the detectors are never compromised they self-calibrate every 6 hours. They also continuously monitor for dust contamination until, depending on the environment, it reaches a point where the chamber becomes saturated. Before this can develop into a false alarm situation, the panel will indicate that the device in question requires attention.

Features

- 3 smoke detection modes
- 3 heat detection modes - 2 fixed, 1 rate-of-rise
- Combination standard heat or smoke mode
- When the detector head is removed, a base mounted LED flashes allowing users to easily identify which head is missing even from considerable distance, e.g. in a high-ceiling building
- The Multipoint ASD detector incorporates a new advanced optical chamber for enhanced smoke detection
- Flexible options/modes of fire detection
- Optional built-in sounder or sounder/strobe in a single device
- Self-calibration every 6 hours
- Continuous monitoring for dust contamination
- Economical, disposable optical chamber for easy replacement

Modes of Detection:

- Smoke 1 - Used where ionisation detectors are normally fitted, especially when there are high ceilings or a risk of free burning fires (chemical stores etc.) or fires that need to be detected extremely quickly.

- Smoke 2 - Used where optical detectors are normally fitted, when there is a risk of a smouldering fire and for escape routes.

- Smoke 3 - Designed for use in areas that are prone to nuisance alarms. The reduced sensitivity linked with a time delay feature, means that a higher concentration of smoke needs to be present for a constant time period, before a fire decision is made. For example, this setting is ideal for hotel bedrooms with en-suite shower rooms. The installer or service engineer can change the setting from smoke 2 to smoke 3 if nuisance alarms are a problem whilst still offering optimum protection of a smoke detection setting.

- Heat 1 (Rate of Rise) - Used where a standard rate of rise detector would normally be used.

- Heat 2 (Standard Fixed Temperature - 58ºC approx.) - Used where a standard fixed temperature heat detector would normally be fitted, suitable for kitchens etc.

- Heat 3 (High Fixed Temperature - 90ºC approx.) - Used where a high fixed temperature heat detector would normally be fitted. Suitable for commercial kitchens, boiler rooms etc.

SPECIFICATIONS	
Operating Temperature	-10° C to +50° C
Voltage Range	18 to 32V DC
Operating Current	Quiescent - 109uA End of line ON if applicable - +50µA
(No strobe version)	Alarm sounding - sounder high - 8.03mA Alarm sounding - sounder low - 2.46mA Alarm sounding - sounder off - 143µA Alarm activated - 15.54mA
(Strobe version)	Alarm sounding - sounder high - 10.54mA Alarm sounding - sounder low - 4.92mA Alarm sounding - sounder off - 2.58mA Alarm activated - 17.92mA
Loading	Max loading units per zone - 160 DLU
(No strobe version)	Sounder high - 8.0 DLU Sounder low - 2.5 DLU No sounder - 0.5 DLU
(Strobe version)	Sounder high - 10.5 DLU Sounder low - 5.0 DLU No sounder - 3.0 DLU
Flammability	UL94-V2
LED Operation	Detector in normal state (smoke) - flash at 20 second intervals Detector in normal state (heat) - double flash at 20 second intervals Detector at EOL - flash at 5 second intervals Detector in fault - flash at 1.3 second intervals Detector detecting fire - flash at 0.7 seconds intervals Detector in fire (once processed at panel) - continuous
IP Rating	IP21C
Volume Level (@ 1m anechonic, dual tone)	Sounder high - 90+dB(A) Sounder low - 70+dB(A)

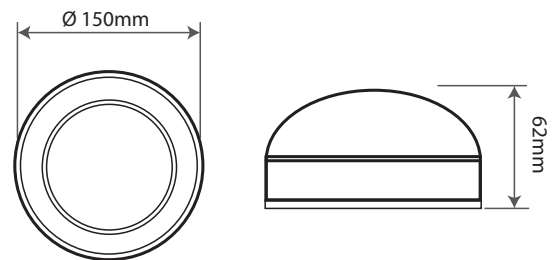| PRODUCT CODE	DESCRIPTION
F/CHSA/SH/PRO	Sabre combined optical and head detector
F/CHSA/SHSB/PRO	Sabre combined detector - optical smoke, heat sounder and visual indicator
F/CHSA/SHS/PRO	Sabre combined detector - optical smoke, heat and sounder

Multipoint Detector

The Multipoint detector can be matched to the environment in which it is installed - and changed at any time during the lifetime of the installation.

Features

- 3 smoke detection modes
- 3 heat detection modes - 2 fixed, 1 rate-of-rise
- Combination standard heat or smoke mode
- Select modes at installation - and change them at any time
- Disposable optical chamber - no need for cleaning, can be economically replaced
- Two high performance optical smoke & heat sensors
- Compact design with fully encapsulated electronics
- Easy to install
- All modes are compliant with BS5839 : Part 1 :2002.

SPECIFICATIONS	
Operating Temperature	-10° C to +50° C
Voltage Range	18 to 35V DC
Operating Current	Quiescent - 65mA Alarm - 39mA Sound high - 16mA Sound low - 8mA
Loading	No sounder -1.5 DLU (Max 160 per zone) Low volume - 3.5 DLU High volume - 8 DLU
Sound Outputs	Low - 75dB High - 90dB
LED Operation	Quiescent - 20s intervals EOL - 5s intervals Fault - 1, 3s intervals Alarm - constant

Ø 150mm

62mm

PRODUCT CODE	DESCRIPTION
F/CHSH/SA	Sabre series combined optical smoke/heat
F/CHSHS/SA	Sabre series combined optical smoke, heat and sounder

Call Points

Both Sabre manual call points are designed to comply with the latest European standards: EN54 parts 3 and 11.
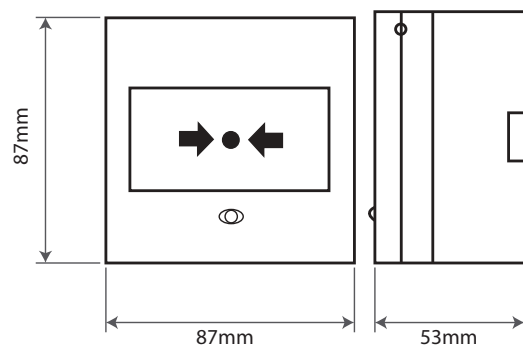
The Sabre call points also have a unique benefit of audible warning.

Each call point comes with an LED for indication of End of Line and Alarm.

Features

- Complies with EN54 Parts 3 and 11
- Reset key provided
- LED indication of "end of line"
- Supplied complete with back box

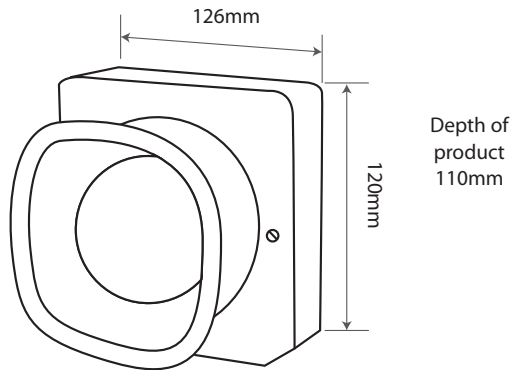| SPECIFICATIONS	
Operating Temperature	-10° C to +50° C
Voltage Range	18 to 35V DC
Operating Current	Quiescent - 105µA MCP alarm - 25mA Sound high - 16mA Sound low - 8mA
Loading	16 DLU (Max 160 DLU per zone)
Sound Outputs	Low - 72dB High - 85dB
LED Operation	EOL - 5s intervals Alarm - 0.3s interval

87mm

87mm   53mm

PRODUCT CODE	DESCRIPTION
F/CHBG/S/SA	Sabre series break glass call point
F/CHBG/S/SA/WP	Sabre series IP65 break glass call point

Industrial Sounder

The Sabre industrial sounder is designed to comply with the latest European standards: EN54 part 3. This sounder has been designed with the industrial market in mind. A horn gives a high sound output and a narrow angle of projection for the more demanding industrial applications.

Features

- Ideal for areas that do not require automatic detection but require a high sound level
- IP55 rating making it suitable fore external applications
- Complies with EN54 part 3

126mm

Depth of product 110mm

120mm

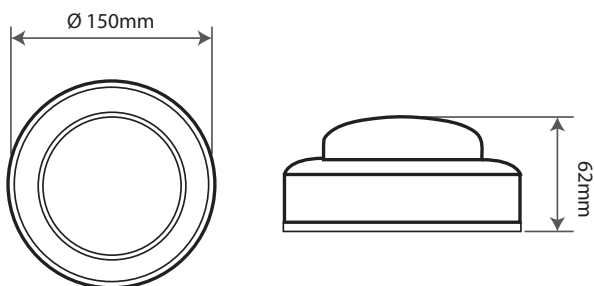| PRODUCT CODE	DESCRIPTION
F/CHSU/I/SA	Sabre industrial horn sounder 95dBA IP55

SPECIFICATIONS	
Operating Temperature	-10° C to +50° C
Voltage Range	18 to 35V DC
Operating Current	Quiescent - 105µA Sound high - 16mA Sound low - 8mA
Loading	36 DLU (Max 160 per zone)
Sound Outputs	Low - 75dB High - 90dB

Sounders

The stand alone Sabre sounder can be utilised where extra sound output on the zone is a requirement, or for areas that do not require automatic detection technology.

Features

- Available in red or white
- Complies with EN54 part 3
- Easy to install with anti-tamper locking mechanism which is only released with the use of the head removal tool

Ø 150mm

62mm

PRODUCT CODE	DESCRIPTION
F/CHSU/SA	Sabre red electronic sounder unit
F/CHSU/SA/WH	Sabre white electronic sounder unit

SPECIFICATIONS	
Operating Temperature	-10°C to 50°C
Voltage Current	18 -35V DC
Operating Current	15mA
Loading	Low volume - 13 DLU High volume -14.5 DLU (Max 160 DLU per zone)
Sound Outputs	92dB

Sounder & Visual Indicator

The Sabre sounder and visual indicator allows a simple and effective visual indication directly from the 2-wire zone, complete with a sounder.
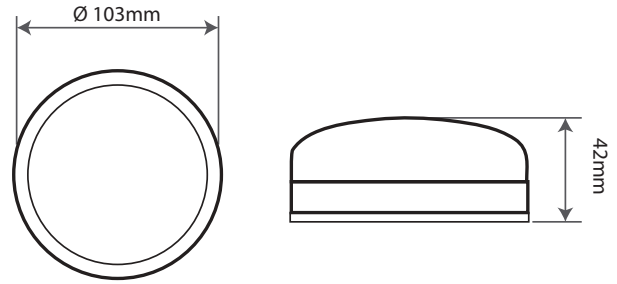
It has been designed to comply with the European standard EN54 part 3.

This zone powered combined sounder and visual indicator is available in a low profile.

Whilst in alarm the flashpoint synchronisation is uniquely reset every 10 seconds to ensure that the visual indicator's flash rate remains in absolute synchronicity across the entire system.

Installation is made simple by first fixing the base and then simply plugging in the unit.

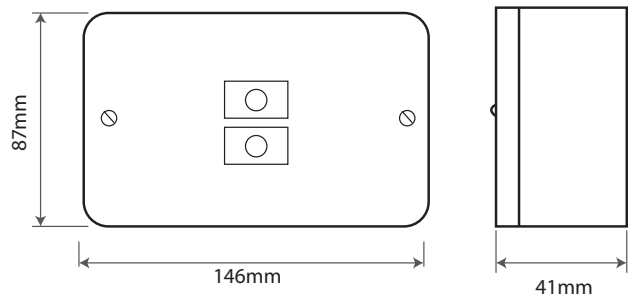| SPECIFICATIONS	
Operating Temperature	-10° C to +45° C
Voltage Range	18 to 35V DC
Operating Current	Quiescent - 190µA Sound high - 13mA Sound low - 9mA Visual indicator - 6mA
Loading	Visual indicator off - 5.5 DLU Visual indicator on, low volume - 15 DLU Visual indicator on, high volume - 24 DLU (Max 160 DLU per zone)
Sound Outputs	Low - 78dB High - 90dB
LED Operation	EOL - 5s Intervals

Ø 103mm

42mm

PRODUCT CODE	DESCRIPTION
F/CHBN/SU/SA	Sabre sounder/visual indicator wired on zone

Input Output Module

The Sabre I/O module provides an interface between ancillary devices and the zone. It can be configured as an input allowing for reporting from other systems / devices and/or as an output to control external systems.

This device may be installed on the same zone as the Multipoint detector/sounder and associated Sabre devices.

SPECIFICATIONS	
Operating Temperature	-10° C to +45° C
Voltage Range	DC Output from Mains Powered Panel - 25.5 to 35V DC DC Output from Battery Powered Panel - 20 to 26V DC
Operating Current	Quiescent - 0.207 mA End of line ON if applicable - 0.080 mA Active - 22.715 mA
LED Indication	Output Active LED (Red) - On continuously when output active Status - EOL/Input Active LED (Red) -
Loading	34.5 DLU (Max 160 DLU per zone)
Flammability	UL94-V2
IP Rating	IP30

FIRE ALARM INTERFACE

ACTIVE

87mm

146mm

41mm

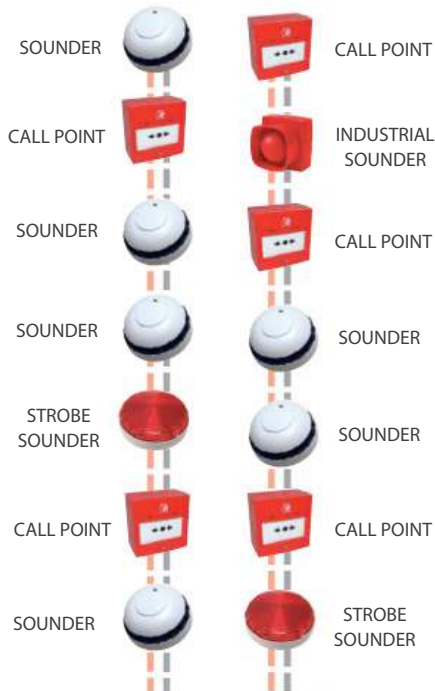| PRODUCT CODE	DESCRIPTION
F/CHSW1/SA	Sabre input output module

Head Removal Tools

The Head Removal Tools make maintenance of systems simple. The Sabre Head removal tools can be used to release the optical chamber on any Sabre Multipoint detector/sounder or Sabre ASD Multipoint detector/sounder and also to unlock the sounder visual indicators.

A necessity for maintenance, the Head Removal Tool is supplied free of charge with any Sabre control panel, but can also be ordered separately if more are required. To assist on site maintenance the Head Removal Tools can be attached to a Solo Extendable Tester Pole.

Image shows from left to right
F/CHHRT/SA & F/CHHRT/ASD

PRODUCT CODE	DESCRIPTION
F/CHHRT/SA	Sabre head removal tool
F/CHHRT/ASD	Sabre ASD head removal tool

SPECIFICATIONS	
Compatibility	All of the following devices;
	• ASD Multipoint detector/sounder
	• Multipoint detector/sounder
	• Flashpoint sounder/visual indicator
	• Sounder/strobe

Sabre Pro Two Wire System

Drift-compensation reduces false alarms, but this feature is not normally found in conventional or two wire systems.

The Sabre detector not only has this feature as standard, but when it reaches its upper limit there is a warning on the panel and at the detector.

The Sabre Pro system also has an in built pre alarm facility that can be programmed through the control panel.

This **"Alarm Confirmation"** feature can significantly reduce the effect of nuisance alarms.

2 Wire, 2 Zone Detection System

Diagram shows a typical installation of a 2 - wire, 2 zone detection system.

Each Fire Detection System is bespoke to each premises' - Channel Safety Systems can offer complete system designs, based on contract awarded.

For further information, please contact our Technical department for on **0845 884 7000** or email **technical@channelsafety.co.uk** or see the back of this technical datasheet.

SOUNDER
CALL POINT
CALL POINT
INDUSTRIAL SOUNDER
SOUNDER
CALL POINT
SOUNDER
SOUNDER
STROBE SOUNDER
SOUNDER
CALL POINT
CALL POINT
SOUNDER
STROBE SOUNDER

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- Emergency Lighting. To BS. 5266. Part 1 2011
- Nurse Call Systems
- Disabled Refuge Systems

Channel Safety Systems provide a dedicated design, supply and commissioning service for Emergency Lighting, Fire Alarm and Assistance. We offer the Contractor and Wholesaler a comprehensive service.

With over 35 years' experience working within these sectors, Channel's knowledge base is extensive and is an invaluable resource for our customers. As Industry standards are ever-changing, we make it our mission to keep abreast of regulatory and legal changes that affect our clients.

As our Project Sales Engineers and Service Engineers are based across the UK, we offer a fast and efficient service for design, site surveys, project management and all commissioning and maintenance services requirements. All our external team members are fully qualified to 'sign off' designs and Channel maintains all the relevant insurance policies which means the legal onus is on us, not the contractor.

* The design service is free on the basis of receipt of order on contract award