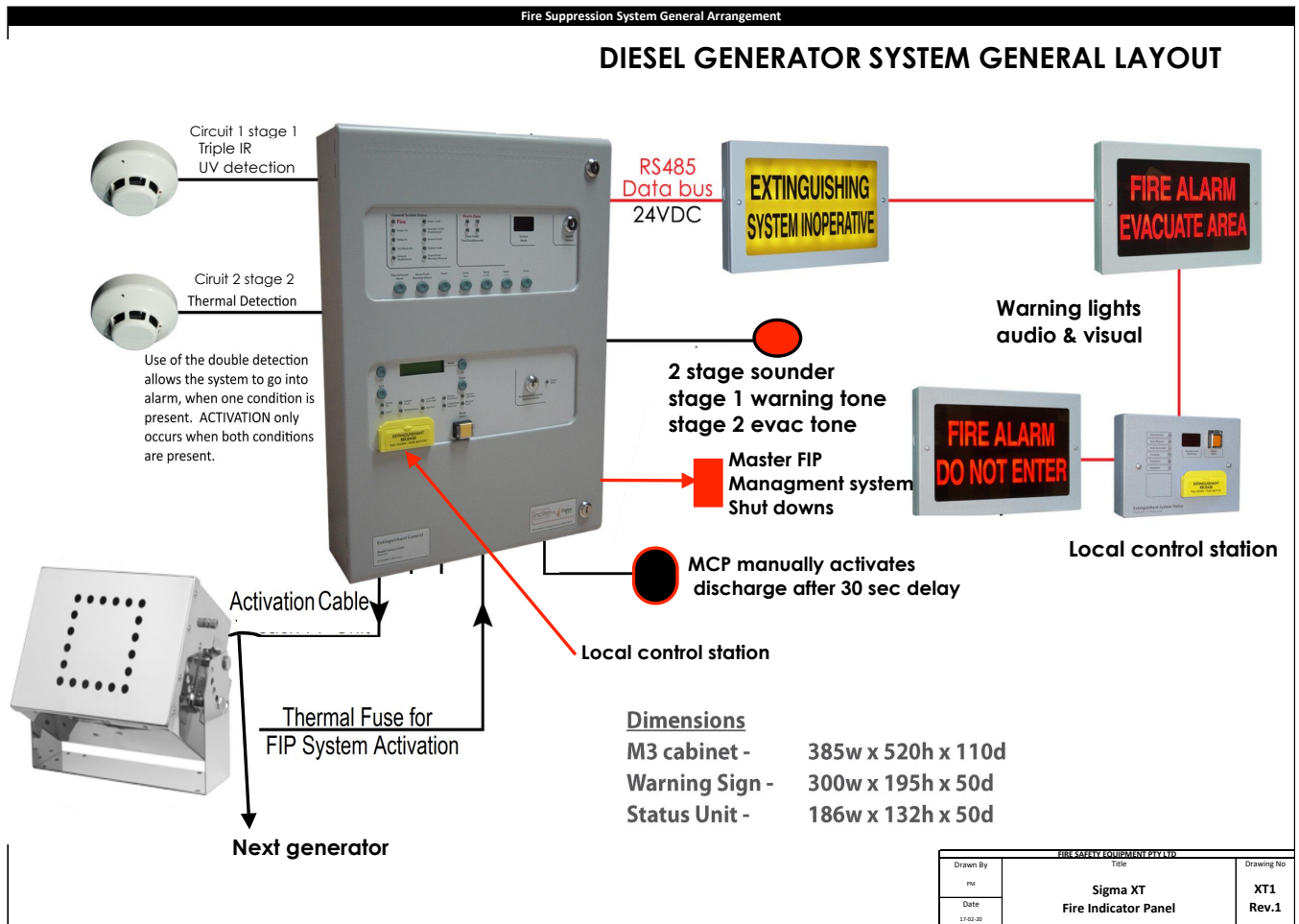


# WAITSIA GAS PROJECT STAGE 2

## FIREPRO FIRE SUPPRESSION SYSTEM DIESEL GENERATOR Z-9011, Z-9021, Z-9031

# DATA SHEETS

### FIRE SUPPRESSION EQUIPMENT



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# 1. Baseline Data

## 1.1. Equipment List

Item	Description	Quantity	Agent/Distributor	Model/Part No.	OEM1	Power Supply Rating (A)	Battery Charger Rating (A)	Quiescent Current (mA) per device	Alarm current (mA) per device	Fixed Service Life (years)	Nominated Service Life (years)	Installed to AS 1670.1	Installed to AS 4487	Maintenance Requirements to AS 1851
<b>E-House</b>														
1	Fire Indicator Panel (FIP) - 8 zone	1	Fire Safety Equipment	FP-90811	Hochiki	5	0.7	65	105	NS <sup>(1)</sup>	10 <sup>(2)</sup>	Y		Section 7 IOM
2	Spectrex Sharp-eye 40/40c-I	2	Fire Safety Equipment	FP-SPECTREX-SHARPEYE	Hoshiki	4-20mA						Y		Section 7 IOM
5	Thermal detector Combined RoR & Fixed Temp.60°C	3	Fire Safety Equipment	FP-94210	Hochiki			8	28	NS <sup>(1)</sup>	5 <sup>(2)</sup>	Y		Section 7 IOM
6	Sign - System Inoperative	1	Fire Safety Equipment	FP-92400	Incite			20	140	NS <sup>(1)</sup>	10 <sup>(2)</sup>		Y	Section 7 IOM
7	Sign - Fire Alarm Do Not Enter	2	Fire Safety Equipment	FP-92100	Incite			20	140	NS <sup>(1)</sup>	10 <sup>(2)</sup>		Y	Section 7 IOM
8	Sign - Fire Alarm Evacuate Area	2	Fire Safety Equipment	FP-92500	Incite			20	140	NS <sup>(1)</sup>	10 <sup>(2)</sup>		Y	Section 7 IOM
9	Local Control Station/Remote Status Unit	1	Fire Safety Equipment	FP-90901	Incite			33	60	NS <sup>(1)</sup>	10 <sup>(2)</sup>		Y	Section 7 IOM
10	Thermal fuse	1	Fire Safety Equipment	FP-08825	FSE					NS <sup>(1)</sup>	10 <sup>(2)</sup>		Y	Section 7 IOM
11	Sirena alert evac warning sounder	3	Fire Safety Equipment	FP-SIR-E-FA-MLINE	FSE				55	NS <sup>(1)</sup>	10 <sup>(2)</sup>	Y		Section 7 IOM
12	Aerosol Generator – 5700g	3	Fire Safety Equipment	FP-5700S	FSE					15	10 <sup>(2)</sup>		Y	Section 7 IOM
13	Aerosol generator-3000g	1	Fire Safety Equipment	FP-3000S	FSE					15	10		Y	Section 7 IOM
14	Battery – 12v 9Ah	2	Fire Safety Equipment							1	1	Y		Section 7 IOM

### Notes

(1) NS - not specified

(2) Estimated as we have no experience in the harsh environment, components generally subjected to regular testing (at least annually)

## 2. Equipment Data Sheets

### 2.1. SIGMA XT Conventional Fire Control Panel

**FirePro.** Reinventing Fire Suppression

# Sigma XT Extinguishant Control Panel

Rev 1.1



### Product Overview

The Sigma XT extinguishant control panel is designed to the requirements of AS7240.0 and ASISO 14520.1

Each extinguishing module has a comprehensive set of inputs and outputs and is configurable via the LCD display and simple menus.

The data bus cabling of the Sigma warning signs and Sigma local control stations, simplifies and minimises cable requirements and maximises monitoring of these devices.

### Standard Features

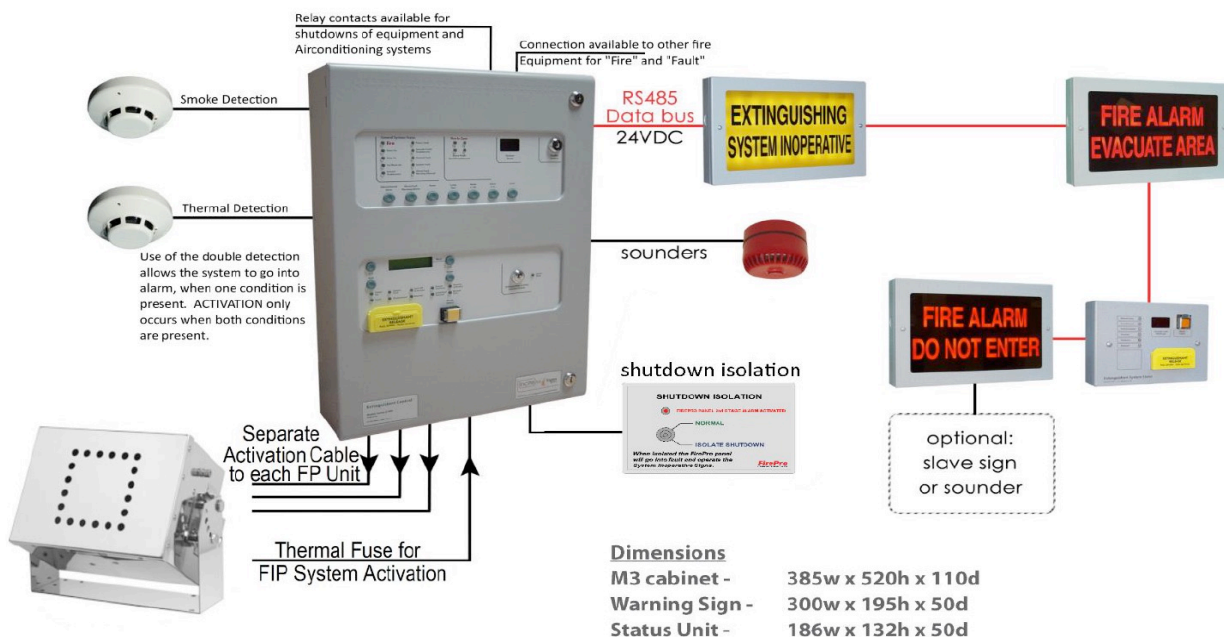
- Fully certified to AS 7420.2 and AS7240.4
- 2-wire and standard versions in 2 or 8 zones
- Fully programmable using simple menu

### Options

- Sounder configuration options
- Coincidence input selection
- Compatible with wide range of detection devices
- Two monitored sounder outputs

### Technical Data

Construction	1.2mm mild sheet steel
IP Rating (Standard unit)	IP30
Colour - lid & box	BS 00 A 05 grey - fine texture
Power supply	230V AC (+10%/-15%)
Fault contact rating	30V DC 1 Amp
Local fire contact	30V DC 1 Amp
Fire contact rating	30V DC 1 Amp
Cable capacity	2.5mm <sup>2</sup> per terminal
Operating temperature	-5°C to +40°C
Operating humidity	<95% (non condensing)
data connection	RS485 connection (max 1200 m)



**FirePro.**

Fire suppression systems backed by **research**, committed to **people** and the **environment**



Reinventing Fire Suppression

# FP-90901 Local Control Station

Rev 1.2



## Extinguisher Status Local Control Station Product Overview

LED indication of Manual Only, Automatic and Manual, Hold operated, Disabled, Imminent and Released conditions.

Local control of the Automatic/ Manual mode.

Monitored inputs for the remote connection of Automatic/ Manual mode and Hold switches.

A large, LED display which shows a countdown of the time remaining until the extinguishant is released in seconds.

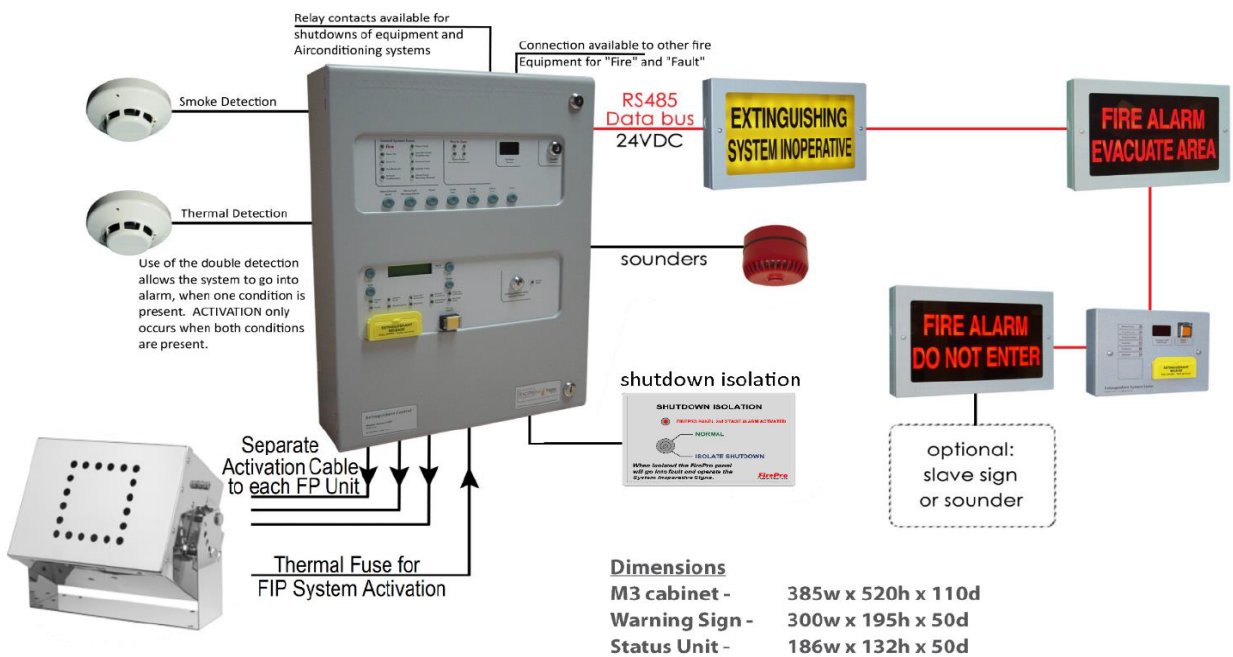
**Part No. 90901**

### Standard Features

- \* High brightness LEDs
- \* Indication of the status of the control panel
- \* Monitored data connection
- \* Countdown timer for agent release
- \* Manual only and Automatic mode select
- \* Four wire connection (data and power)
- \* Protected dual action manual release switch
- \* Common fault indication with buzzer
- \* Robust, high quality enclosure
- \* Easy access to terminals
- \* Remote Hold input (monitored)
- \* Internal fault diagnosis indicators
- \* Internal buzzer

### Technical Data & Standard References

Construction	1.2mm mild sheet steel
IP Rating (Standard unit)	IP30
Colour - lid & box	BS 00 A 05 grey - fine texture
Weight	1kg (all units)
Power supply	21 to 30 V DC
Maximum current draw	70 mA
Max. number of status units	7
Quiescent current	60 mA
Cable capacity	2.5mm <sup>2</sup> per terminal
Monitored inputs end of line resistor	6K8 0.5W Resistor
Monitored inputs normal threshold	8K ohm to 1K ohm
Monitored inputs trigger threshold	700 ohms to 100 ohms
Monitored inputs Short circuit threshold	99 ohms to 0 ohms
data connection	RS485 connection (max 1200 m)
Size	256 x 170 x 60 (mm)

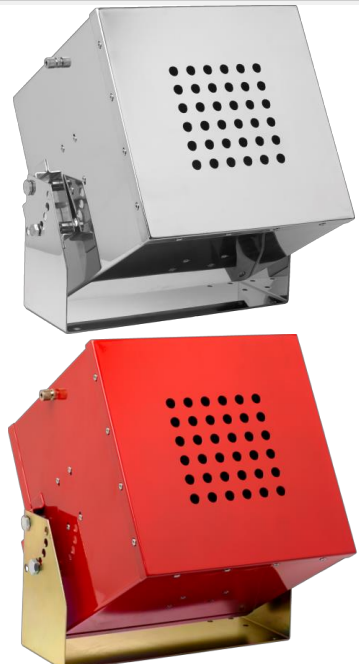


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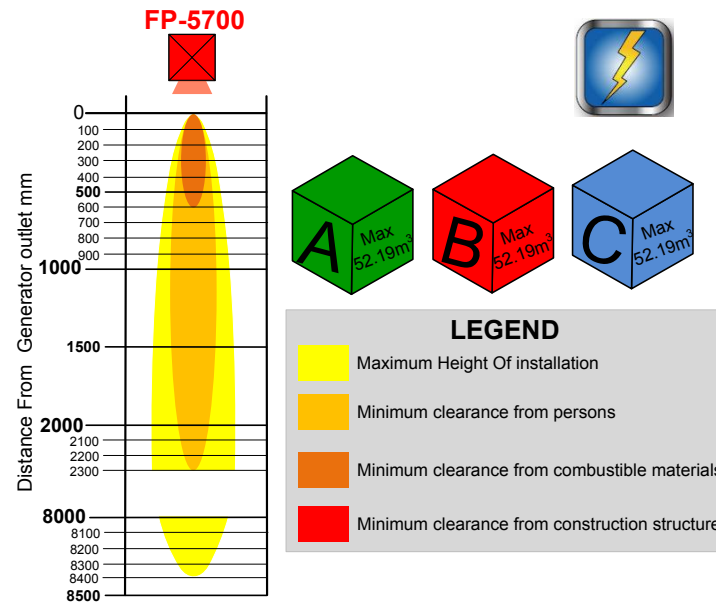
## 2.3. FirePro Aerosol Generators


- 5700g Generators-

**FirePro® Condensed Aerosol generators: FP-5700/S/T/TS**



**FP-5700**





**LEGEND**

- Maximum Height Of installation
- Minimum clearance from persons
- Minimum clearance from combustible materials
- Minimum clearance from construction structure

Technical Data					
Mass of FPC (Aerosol Generating Solid Compound)	5700 g				
Generators gross weight	Weight				Tolerance
	26400 g				± 5%
Activation mode/s	Electrically				
Value of activation	6/12/24/36 V D/C 0.8 A 3-4 s				
FPC activation device	Heating elements with 1.6-3.6 Ω Resistance				
Activation line supervision current (Max)	5 mA				
Aerosol discharge time	Min.				Max
	15 seconds				20 seconds
Number of discharge outlet	1				
Generator dimension	Height	Width	Length		
	300 mm	300 mm	300 mm		
Self-activation temperature of FPC	300° C				
Classes of Fire (NFPA 2010)	A	B	C	D	K
	√	√	√	NO	NO
Generator Coverage Constraints	Min ht: 0.45 m		Max area: 32 m <sup>2</sup>		
Maximum height of installation	8.4 m				
Minimum clearance (mm)	From persons	From combustible material	From Generator's Casing		
	2000 mm	600 mm	6.4 mm		
Environmental parameters	ODP <sup>1</sup>	GWP <sup>2</sup>	ALT <sup>3</sup>		
	Zero	Zero	Negligible <sup>4</sup>		
Technical Parameters	Electrical conductivity		Corrosion	Oxygen depletion After discharge	
	Nil up to 75KV		Negligible <sup>4</sup>	Negligible <sup>4</sup>	
Note	1	ODP: Ozone Depletion Potential		3	ALT: Atmospheric Life Time
	2	GWP: Global Warming Potential		4	Within the parameters for use

Manufactured by	Master dealers / Distributor	Trade Mark
FirePro Systems Ltd.		FirePro.

# Bracket Drawing & Dimensions

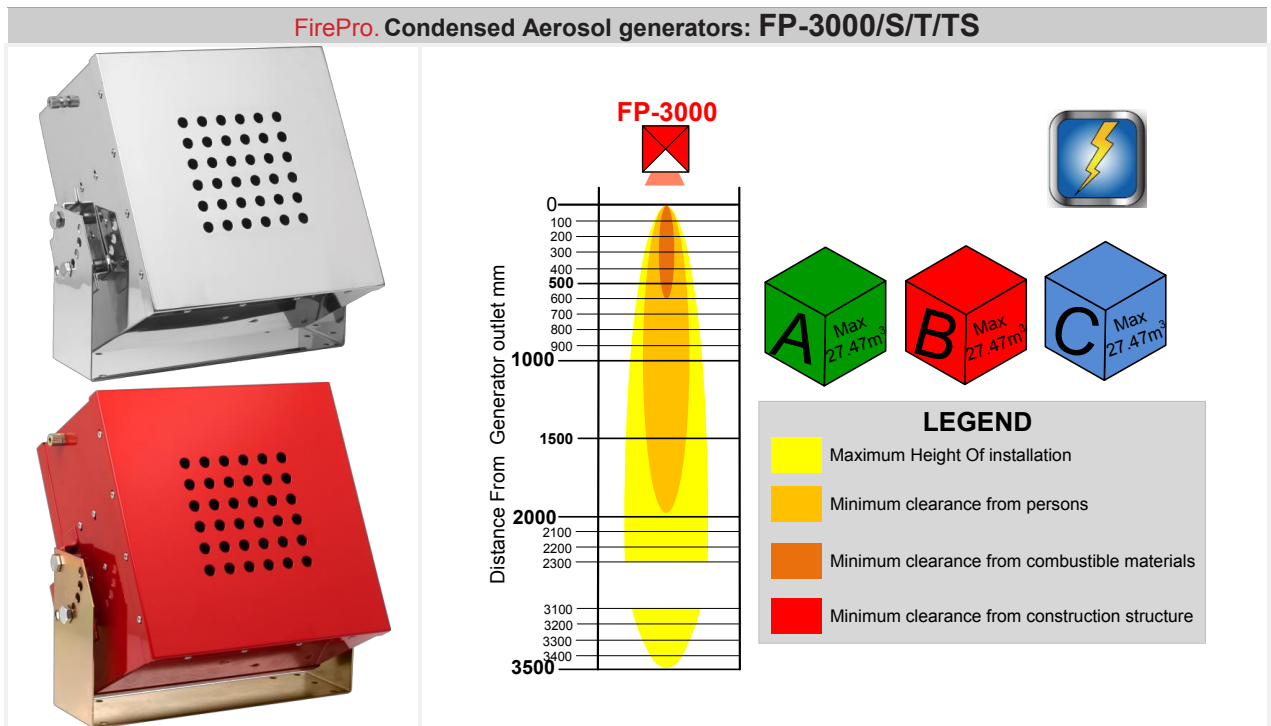
HD Bracket - FP-6100 shown

Notes :

- 1 Dimensions 300 x 300 x 300mm Excl Bracket
- 2 Weight 26.4kg Excl Bracket
- 3 Aerosol Cabinet Material - SS 304L
- 4 HD Bracket Material - 2.5mm SS316
- 5 Std Bracket Material - 1.5mm SS304L
- 6 Transorb installed in Electrical Units - Aust Only

FIRE SAFETY EQUIPMENT PTY LTD			
Rev	Description	By	Date
01	CRITICAL INSPECTION ITEMS DEMONSTRATED		
02	CRITICAL INSPECTION ITEMS DEMONSTRATED		
03	CRITICAL INSPECTION ITEMS DEMONSTRATED		
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99	CRITICAL INSPECTION ITEMS DEMONSTRATED		
100	CRITICAL INSPECTION ITEMS DEMONSTRATED		

• **FP-3000g Generators –**



Technical Data					
Mass of FPC (Aerosol Generating Solid Compound)	3000 g				
Generators gross weight	<b>Weight</b>		<b>Tolerance</b>		
	16300 g		± 5%		
Activation mode/s	<b>Electrically</b>				
Value of activation	6/12/24/36 V D/C 0.8 A 3-4 s				
FPC activation device	Heating elements with 1.6-3.6 Ω Resistance				
Activation line supervision current (Max)	5 mA				
Aerosol discharge time	<b>Min.</b>		<b>Max</b>		
	15 seconds		20 seconds		
Number of discharge outlet	1				
Generator dimension	<b>Height</b>		<b>Width</b>	<b>Length</b>	
	185 mm		300 mm	300 mm	
Self-activation temperature of FPC	300° C				
Classes of Fire (NFPA 2010)	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>K</b>
	√	√	√	NO	NO
Generator Coverage Constraints	Min ht: 0.45 m		Max area: 32.03 m <sup>2</sup>		
Maximum height of installation	3.5 m				
Minimum clearance (mm)	<b>From persons</b>		<b>From combustible material</b>	<b>From Generator's Casing</b>	
	2000 mm		600 mm	6.4 mm	
Environmental parameters	<b>ODP<sup>1</sup></b>		<b>GWP<sup>2</sup></b>	<b>ALT<sup>3</sup></b>	
	Zero		Zero	Negligible <sup>4</sup>	
Technical Parameters	<b>Electrical conductivity</b>		<b>Corrosion</b>	<b>Oxygen depletion After discharge</b>	
	Nil up to 75KV		Negligible <sup>4</sup>	Negligible <sup>4</sup>	
Note	<b>1</b>	ODP: Ozone Depletion Potential		<b>3</b>	ALT: Atmospheric Life Time
	<b>2</b>	GWP: Global Warming Potential		<b>4</b>	Within the parameters for use

<small>Manufactured by</small> <b>FirePro Systems Ltd.</b>	<small>Master dealers / Distributor</small>	<small>Trade Mark</small> <b>FirePro</b>
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## 2.4. Thermal & Photo optical detection.

### DETECTORS for use with SIGMA FIP



#### Conventional Combined Rate of Rise & Fixed Temp Heat Detector (60°C) FP-94210

Rate of Rise Heat Detector with a 60°C fixed temperature element using a thermistor and linearising circuit to provide an accurate linear response Heat Detector. Ideal for use where medium ambient temperatures exist, such as drying rooms or where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen. (DCD-A3)

#### Conventional Combined Rate of Rise & Fixed Temp Heat Detector (90°C) FP-94220

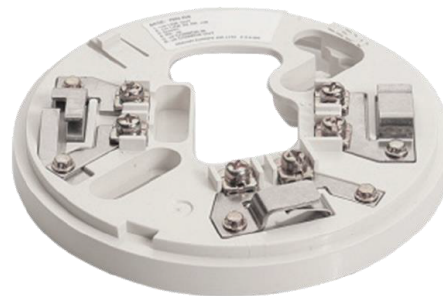
Rate of Rise Heat Detector with a 90°C fixed temperature element using a thermistor and linearising circuit to provide an accurate linear response Heat Detector. Ideal for use where medium ambient temperatures exist, such as drying rooms or where Smoke Detectors are unsuitable because of the presence of steam or cooking fumes such as in a kitchen. (DCD-C3)

#### Conventional Photoelectric Smoke Detector FP-94240

The SLV-AS3 incorporates Hochiki's unique High Performance photoelectric smoke chamber removing the need to use Ionisation Detectors in the majority of applications. This also allows the Detector threshold level to be increased, thereby improving the signal to noise ratio and reducing susceptibility to false alarms. (SLV-AS3)

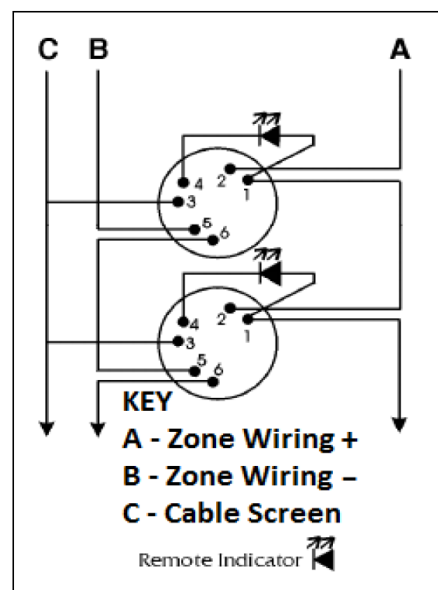
#### Detector Base FP-94200

Conventional Detector Mounting Base associated with the CDX Range of Detectors and is fully compatible with the majority of existing conventional fire alarm control panels. It is supplied with square cable clamps for secure and reliable cable termination but the base does not provide line continuity during detector removal, therefore if Call Points are being used then these should be wired onto the zone first. (YNB-R6)



- Features :
- Wide voltage range (9.5 ~ 30Vd.c.)
  - Remote Indicator output
  - Low profile design with one piece outer cover
  - Twin fire LED's allow 360° viewing

Specifications			
Ordering Code	FP-94210 DCD-A3	FP-94220 DCD-C3	FP-94240 SLV-AS3
Operating Voltage	9.5 - 30Vd.c.		
Quiescent Current (typ)	35µA		
Maximum Current in Alarm	80mA		
Remote Indicator Drive	20mA (max) / 9.5-14mA (typ)		
Maximum Humidity	95%RH - Non Condensing (at 40°C)		
Ingress Protection Rating	IP63		IP42
Colour / Case Material	White / Polycarbonate		White / ABS
Weight (g) / Diameter (mm) / Height (mm)	76 / 100 / 38		75/100 / 46
Compatible Bases /Base Height	FP-92400 (YBN-R6) / 8m		
Base Fixing Centres (mm)	48 ~ 74		
Approvals	AS7240.5	AS7240.5	
	Class CR	Class A1R	



**Product Data Sheet**  
00913-0200-4976, Rev AC  
September 2021

## **Spectrex SharpEye™ 40/40C-I** Multispectrum Quad-Sense™ Flame Detector



The SharpEye 40/40C-I Multispectrum Quad-Sense flame detector is part of the leading, next generation SharpEye 40/40 series.

Featuring enhanced performance, advanced long distance detection of hydrocarbon fires at up to 215 ft (65 m), fast detection in under five seconds, and strengthened reliability, the SharpEye 40/40C-I is based on proven triple infrared (IR3) technology, ensuring high sensitivity with superior immunity to false alarms and surely keeping a SharpEye on your safety.



## Features and benefits

Multi-Spectrum Quad-Sense flame detector - integrating four infrared (IR) sensors to further improve differentiation of flame sources from non-flame background radiation.

- Advanced long distance detection of hydrocarbon-based fuel and gas fires at up to 215 ft (65 m)
- Fast detection, under five sec
- Proven false alarm immunity
- Unparalleled reliability - 150,000 hours MTBF
- Wide temperature range:  
-40 °F (-40 °C) to 167 °F (75 °C)
- Enhanced durability backed up by with three-year warranty
- Five sensitivity levels, adapting to any application
- Innovative IR Built-In-Test - continuously validating the optical integrity and the electronic circuitry
- Multiple output options for maximum compatibility with standard infrastructures
- Plug and play - factory calibrated for immediate use in any fire detection system
- Universal wiring option for fast ordering process
- Heated optic for impeccable performance in challenging environmental conditions
- Worldwide and regionally certified for hazardous areas
- Performance and reliability approved by recognizable certification bodies
- SIL3 compatible
- Internal log event recorder to analyze past events

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### Contents

Features and benefits.....	2
Applications.....	3
Ordering information.....	4
Specifications.....	5
Approvals.....	8

## Applications

- Oil and gas onshore and offshore installations and pipelines
- Chemical and petrochemical plants
- Storage tank farms
- Aircraft hangars
- Power generation facilities
- Pharmaceutical industry
- Printing industry
- Warehouses
- Automotive industry
- Explosives and munitions
- Waste disposal facilities
- Light industrial

## Ordering information

[VIEW PRODUCT >](#)

### Model

Code	Description
-I	Quad-Sense™ triple infrared (IR3)

### Wiring

Code	Description
-6	Universal

### Operating temperature range

Code	Description
4	-40 °F (-40 °C) to 167 °F (75 °C)

### Electrical cable entries

Code	Description
1	M25
2	¾-in NPT

### Enclosure

Code	Description
A	Aluminum polyurethane painted

### Hazardous area approval

Code	Description
B	Inmetro (pending)
F	FM, FMC, Canadian Standardization Association (CSA) for United States and Canada
C	ATEC, IECEx
R	EAC CU TR

## Tilt mount

Code	Description
Y	Including tilt mount stainless steel 316
N	Without tilt mount

## Protective cover

Code	Description
7	ABS plastic
8	Stainless steel 316

## Accessories

Part number	Description
FS-1100	Flame simulator (ex proof)
877090	Tilt mount
877670	Duct mount
789260-2	U-bolt/pole mount 2-in
789260-1	U-bolt/pole mount 3-in
794079	USB RS-485 harness kit
877650	Air shield
877263 <sup>(1)</sup>	Protective cover (Plastic)
877163	Protective cover (Stainless steel)

(1) Supplied free of charge with the detector.

## Specifications

Table 1: Detection Range

At highest sensitivity setting for 1 ft<sup>2</sup> (0.1 m<sup>2</sup>) pan fire.

Fuel	Range (ft/m)
Gasoline	215/65
n-Heptane	215/65
Diesel	150/45
JP5	150/45
Kerosene	150/45

Table 1: Detection Range (continued)

Fuel	Range (ft/m)
Ethanol 95%	135/40
Isopropyl alcohol (IPA)	135/40
Methanol	135/40
Methane <sup>(1)</sup>	150/45
Liquefied petroleum gas (LPG) <sup>(1)</sup>	150/45
Polypropylene pellets	115/35
Office paper	83/25
Gun powder (1.5 in <sup>2</sup> (10 cm <sup>2</sup> ))	141/43
Fireworks (10 pieces per test)	23/7
Cooking oil	150/45
Mineral oil (20w50)	150/45
Wood	83/25
Ethylene glycol	118/36
Butyl acrylate	177/54
Vinyl acetate	177/54
Flammable adhesive (flash point 140 °F (60 °C))	150/45
Solvents	177/54
Oil paint	150/45
Jet fuel A1	150/45
Battery <sup>(2)</sup>	200/61

(1) 30 in (0.75 m) high, 10 in (0.25 m) wide plume fire

(2) One battery cell

Table 2: General Specifications

Detection response time	Standard response: Typically < 5 sec
Sensitivity ranges	5 sensitivity ranges for 1 ft <sup>2</sup> (0.1 m <sup>2</sup> ) n-heptane pan fire
Field of view	Horizontal: 100 ° Vertical: 95 °
Temperature range	Operating: -40 °F (-40 °C) to 167 °F (75 °C) Storage: -40 °F (-40 °C) to 167 °F (75 °C)
Humidity	Non-condensing relative humidity up to 100%

Table 3: Electrical Specifications

Operating voltage	24 Vdc nominal (18-32 Vdc)
Power consumption	Standby: Maximum 3 W (8 W with heated window) Alarm: Maximum 4.2 W (9 W with heated window)
Cable entries	2 x ¾ in - NPT conduits or 2 x M25 x 1.5 mm ISO
Electrical input protection	According to EN 50130



Table 3: Electrical Specifications (continued)

Electromagnetic compatibility	EMI/RFI protected to EN61000-6-3 and EN 50130
Electrical interface	The detector includes 17 terminals and one wiring option

Table 4: Outputs

Relays	Alarm, fault, and auxiliary SPST volt-free contacts rated 2 A at 30 Vdc
Analog output	Analog port malfunction: 0 V (< 0.5 V) Normal: 2 V $\pm$ 0.3 V Alarm: 5 V $\pm$ 0.3 V
0-20 mA (stepped)	Fault: 0 $\pm$ 1 mA Built-in test (BIT) fault: 2 mA $\pm$ 0.3 mA Normal: 4 mA $\pm$ 0.3 mA Warning: 16 mA $\pm$ 0.3 mA Alarm: 20 mA $\pm$ 0.3 mA
HART® protocol	HART communications on the 0-20 mA analog current (FSK) used for maintenance, configuration changes, and asset management, available in mA source output wiring options
RS-485	RS-485 Modbus® compatible communication link that can be used in computer controlled installations

Table 5: Mechanical Specifications

Enclosure options	Heavy duty copper free aluminum (less than 1%), polyurethane painted
Mounting	Electropolished stainless steel 316
Dimensions	Detector: 4 x 4.6 x 6.18 in (100.6 x 117 x 155 mm)
Weight	Detector aluminum: 2.8 lb (1.3 kg) Tilt mount: 2.5 lb (1.1 kg)
Water and dust	IP66 and IP68 per EN 60529, NEMA® 250 6P

## Approvals

### Hazardous area

**ATEX and IECEx**

Ex II 2GD  
Ex db eb IIC T4 Gb  
Ex tb IIIC T100 °C Db  
Ta = -40 °C to +75 °C  
IP66/IP68

**FM/FMC/CSA**

Class I, Division 1, Groups B, C, and D, T4A  
Class II, III, Division 1, Groups E, F, and G, T4A  
Class I, Division 2, Groups A, B, C, and D, T4  
Ta = -40 °C to +75 °C  
Type 6P; IP 66/68 6.6 ft (2 m) for 45 minutes

**TR CU (EAC)**

1Ex d e IIC T4 Gb  
Ex tb IIIC T100 °C Db  
Ta = -40 °C to +75 °C  
IP66/IP68

**In Metro**

Pending

**Performance**

EN54-10 | FM3260

**Reliability**

IEC61508 - SIL3 (TUV)



## FP-14053 Manual Actuator

Rev 2

For use with Fire Suppression Systems

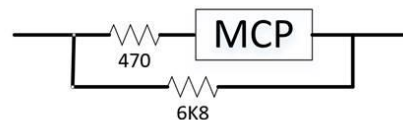
- Suitable for harsh vibration environments, such as vehicles and marine vessels
- Safety pin and anti-tamper tie to prevent accidental discharge
- Moulded aluminium assembly with water-proof switch mechanism
- Stainless Steel (316SS) switch guard for external applications
- Connections via Deutsch Plugs
- Made in the Australia

Specifications	
Contact Rating	50vDC
Contact Configuration	Normally Open
Switch Operation	Momentary Action
Dimensions	L100 x W80 x D64 mm



### Instructions for use with Sigma XT Fire Panel

Sigma Panel requires special configuration with a 470 k Resistor in line and a 6K8 End of Line resistor as shown.



### 3.1. Sounder DUAL TONE Alert & Evacuate

SIRENA

MLINE

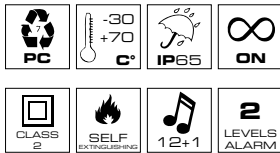
## SIR-E FA



SIR-E FA

100 dB max - EN54-3

Cupole / Domes / Dômes



SIR-E FA

V DC	12 ÷ 24
mA	45 35
dB(A)1m	80 ÷ 100

Può essere installato con  
Can be installed with  
Peut être assemblé à

Basi / Bases



	EN54-3	EN54-3	EN54-3
	SHALLOW	DEEP	WALL
12/24V ACDC	✓	✓	✓
PNP 12/24V DC	✗	✗	✓
	FLUSH	DOUBLE	POLE

EN54-3

Vedi sezione BASI a pag. 120  
See BASE Section on page 120  
Voir page 120, section BASES

Codici / Codes

SIR-E FA



Sirena elettronica multifunzione certificata EN54-3. Sviluppata con tecnologia multicanale, SIR-E FA permette di gestire due diversi livelli di allarme (pre-allarme, allarme) attivabili tramite contatti elettrici indipendenti. Multisuono: 13 suoni certificati EN54-3.

#### Tensione operativa

Utilizzo consentito solo con basi LT 12/24V.

#### Caratteristiche meccaniche

Polycarbonato autoestinguente ad alta resistenza agli impatti, adatto per utilizzo esterno grazie al grado di protezione IP65.

#### Caratteristiche acustiche

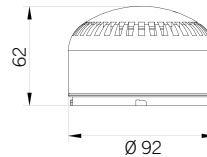
Buzzer elettromagnetico che produce:

- PRE-ALLARME, un potente suono elettronico di max. 100 dB (suono selezionabile via dip-switch tra 12 suoni certificati EN54-3)
- ALLARME, un potente suono elettronico di max. 100 dB (1 suono continuo certificato EN54-3: PFEER TOXIC GAS).

#### Certificazioni / Certifications



Numero CPR / Construction products regulation / Numero d'homologation CPR  
EN54-3 | 1328-CPR-0479



SIR-E FA



EN54-3 approved multifunctional electronic sounder. Developed with a multichannel technology, SIR-E FA allows two separate levels of alarm (pre-alarm, alarm) controllable via independent electric contacts. Multitone: 13 EN54-3 approved tones.

#### Voltages

Must be used with LT 12/24V base.

#### Mechanical features

Self-extinguishing PC body with high impact resistance, suitable for outdoor applications thanks to the IP65 protection grade.

#### Acoustic features

Electromagnetic buzzer producing:  
- PRE-ALARM, a powerful up to 100 dB electronic tone (selectable via dip switch out of 12 EN54-3 approved tones)  
- ALARM, a powerful up to 100 dB electronic tone (1 EN54-3 approved continuous tone: PFEER TOXIC GAS).



Sirène électronique multifonctionnelle certifiée selon la norme EN54-3. Développée avec une technologie multicanale, SIR-E FA permet d'avoir deux niveaux d'alarme (pré-alarme, alarme) réglables à l'aide de connexions électriques séparées. Multi-sons : 13 sons homologués selon EN54-3.

#### Tension d'utilisation

Utilisation autorisée seulement avec bases LT 12/24V.

#### Caractéristiques mécaniques

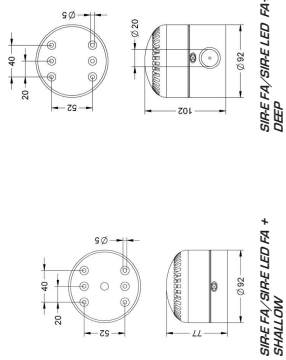
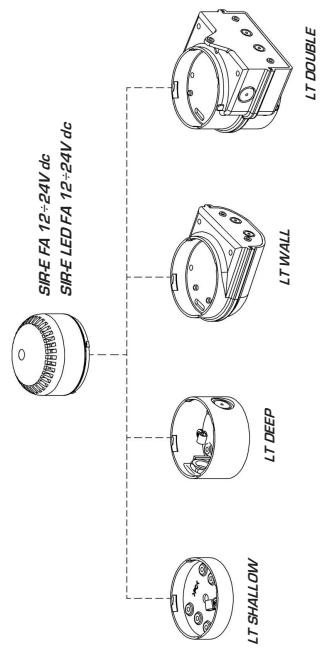
Polycarbonate autoextinguible, haute résistance aux chocs, adapté pour une utilisation à l'extérieur grâce au degré de protection IP65.

#### Caractéristiques acoustiques

Buzzer électromagnétique qui produit :  
- PRE-ALARME, un puissant son électronique d'un maximum de 100 dB (le son peut être sélectionné à l'aide de dip-switch entre 12 sons homologués selon EN54-3)  
- ALARME, un puissant son électronique d'un maximum de 100 dB (un son continu homologué selon EN54-3 : type PFEER TOXIC GAS).

ISTRUZIONI DI INSTALLAZIONE E UTILIZZO - INSTALLATION AND APPLICATION INSTRUCTIONS -  
 - INSTRUCTIONS D'INSTALLATION ET D'UTILISATION - INSTALLATIONS- UND BEDIENUNGSANLEITUNG -  
 - INSTRUCCIONES DE INSTALACION Y EMPLEO -

Dispositivo sonoro di allarme incendio (TIPO B) conforme EN 54-3:2001 + A1:2002 + A2:2006  
 Fire Alarm acoustic device (Type B), conform to EN 54-3:2001 + A1:2002 + A2:2006  
 Avertisseur acoustique pour Alarme Incendie (Type B), conformément à EN 54-3:2001 + A1:2002 + A2:2006  
 Feueralarm akustische Gerät (Type B), EN 54-3:2001 + A1:2002 + A2:2006 entsprechenden  
 Dispositivo acústico de Alarma de Incendio (Tipo B), conforme con EN 54-3:2001 + A1:2002 + A2:2006

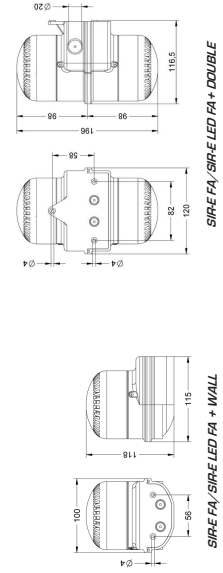


**SIRE FA**

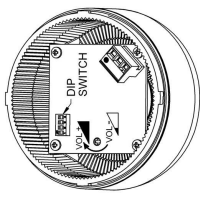
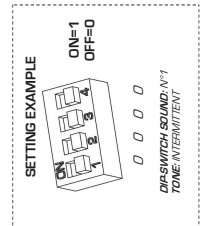
V max	12-24
mA	45 - 35
dB(A)1m	80 - 100
°C	-30 - +70

**SIRE LED FA**

V max	12-24
mA	120 - 110
dB(A)1m	80 - 100
°C	-30 - +70



Il documento che riporta il livello sonoro previsto dal punto 4.6.2 della norma EN 54-3 è disponibile a richiesta  
 The document showing the sound level specified at point 4.6.2 of the EN 54-3 Norm is available upon request  
 Le document énonçant le niveau sonore indiqué au point 4.6.2 de la Norme EN 54-3 est disponible sur demande  
 Das Dokument, mit der am Punkt 4.6.2 der Norm EN 54-3 festgesetzter Lautstärke, ist auf Anfrage erhältlich  
 El documento que recoge el nivel sonoro establecido en el punto 4.6.2 de la Norma EN 54-3 esca disponible bajo petición



**DIP-SWITCH SOUNDS**

N°	TIME	FMH	DESCRIPTION	DIP-SWITCH
S0	1	INTERMITTENT	ALLERTAMENTO	0 0 0 0
S1	2	5s-TONE	EVACUAZIONE 1	1 0 0 0
S2	3	URGENT	EVACUAZIONE 2	0 1 1 0
S3	4	SWEEP	INCENDIO	0 1 1 0
S4	5	SWEEP	OCLE 1/5s	0 1 1 0
S5	6	SWEEP	OCLE 1/4s	0 1 1 0
S6	7	BITONE	OCLE 1/3s	0 1 1 0
S7	8	SWEEP	OCLE 1/2s	0 1 1 0
S8	9	5s-TONE	OCLE 1/1s	0 1 1 0
S9	10	5s-TONE	OCLE 1/2s	0 1 1 0
S10	11	SWEEP	OCLE 1/3s	0 1 1 0
S11	12	SWEEP	OCLE 1/4s	0 1 1 0
S12	13	URGENT	OCLE 1/5s	0 1 1 0
S13	14	URGENT	OCLE 1/6s	0 1 1 0
S14	15	URGENT	OCLE 1/7s	0 1 1 0
S15	16	URGENT	OCLE 1/8s	0 1 1 0
S16	17	URGENT	OCLE 1/9s	0 1 1 0
S17	18	URGENT	OCLE 1/10s	0 1 1 0
S18	19	URGENT	OCLE 1/11s	0 1 1 0
S19	20	URGENT	OCLE 1/12s	0 1 1 0
S20	21	URGENT	OCLE 1/13s	0 1 1 0
S21	22	URGENT	OCLE 1/14s	0 1 1 0
S22	23	URGENT	OCLE 1/15s	0 1 1 0
S23	24	URGENT	OCLE 1/16s	0 1 1 0
S24	25	URGENT	OCLE 1/17s	0 1 1 0
S25	26	URGENT	OCLE 1/18s	0 1 1 0
S26	27	URGENT	OCLE 1/19s	0 1 1 0
S27	28	URGENT	OCLE 1/20s	0 1 1 0
S28	29	URGENT	OCLE 1/21s	0 1 1 0
S29	30	URGENT	OCLE 1/22s	0 1 1 0
S30	31	URGENT	OCLE 1/23s	0 1 1 0
S31	32	URGENT	OCLE 1/24s	0 1 1 0
S32	33	URGENT	OCLE 1/25s	0 1 1 0
S33	34	URGENT	OCLE 1/26s	0 1 1 0
S34	35	URGENT	OCLE 1/27s	0 1 1 0
S35	36	URGENT	OCLE 1/28s	0 1 1 0
S36	37	URGENT	OCLE 1/29s	0 1 1 0
S37	38	URGENT	OCLE 1/30s	0 1 1 0
S38	39	URGENT	OCLE 1/31s	0 1 1 0
S39	40	URGENT	OCLE 1/32s	0 1 1 0
S40	41	URGENT	OCLE 1/33s	0 1 1 0
S41	42	URGENT	OCLE 1/34s	0 1 1 0
S42	43	URGENT	OCLE 1/35s	0 1 1 0
S43	44	URGENT	OCLE 1/36s	0 1 1 0
S44	45	URGENT	OCLE 1/37s	0 1 1 0
S45	46	URGENT	OCLE 1/38s	0 1 1 0
S46	47	URGENT	OCLE 1/39s	0 1 1 0
S47	48	URGENT	OCLE 1/40s	0 1 1 0
S48	49	URGENT	OCLE 1/41s	0 1 1 0
S49	50	URGENT	OCLE 1/42s	0 1 1 0
S50	51	URGENT	OCLE 1/43s	0 1 1 0
S51	52	URGENT	OCLE 1/44s	0 1 1 0
S52	53	URGENT	OCLE 1/45s	0 1 1 0
S53	54	URGENT	OCLE 1/46s	0 1 1 0
S54	55	URGENT	OCLE 1/47s	0 1 1 0
S55	56	URGENT	OCLE 1/48s	0 1 1 0
S56	57	URGENT	OCLE 1/49s	0 1 1 0
S57	58	URGENT	OCLE 1/50s	0 1 1 0
S58	59	URGENT	OCLE 1/51s	0 1 1 0
S59	60	URGENT	OCLE 1/52s	0 1 1 0
S60	61	URGENT	OCLE 1/53s	0 1 1 0
S61	62	URGENT	OCLE 1/54s	0 1 1 0
S62	63	URGENT	OCLE 1/55s	0 1 1 0
S63	64	URGENT	OCLE 1/56s	0 1 1 0
S64	65	URGENT	OCLE 1/57s	0 1 1 0
S65	66	URGENT	OCLE 1/58s	0 1 1 0
S66	67	URGENT	OCLE 1/59s	0 1 1 0
S67	68	URGENT	OCLE 1/60s	0 1 1 0
S68	69	URGENT	OCLE 1/61s	0 1 1 0
S69	70	URGENT	OCLE 1/62s	0 1 1 0
S70	71	URGENT	OCLE 1/63s	0 1 1 0
S71	72	URGENT	OCLE 1/64s	0 1 1 0
S72	73	URGENT	OCLE 1/65s	0 1 1 0
S73	74	URGENT	OCLE 1/66s	0 1 1 0
S74	75	URGENT	OCLE 1/67s	0 1 1 0
S75	76	URGENT	OCLE 1/68s	0 1 1 0
S76	77	URGENT	OCLE 1/69s	0 1 1 0
S77	78	URGENT	OCLE 1/70s	0 1 1 0
S78	79	URGENT	OCLE 1/71s	0 1 1 0
S79	80	URGENT	OCLE 1/72s	0 1 1 0
S80	81	URGENT	OCLE 1/73s	0 1 1 0
S81	82	URGENT	OCLE 1/74s	0 1 1 0
S82	83	URGENT	OCLE 1/75s	0 1 1 0
S83	84	URGENT	OCLE 1/76s	0 1 1 0
S84	85	URGENT	OCLE 1/77s	0 1 1 0
S85	86	URGENT	OCLE 1/78s	0 1 1 0
S86	87	URGENT	OCLE 1/79s	0 1 1 0
S87	88	URGENT	OCLE 1/80s	0 1 1 0
S88	89	URGENT	OCLE 1/81s	0 1 1 0
S89	90	URGENT	OCLE 1/82s	0 1 1 0
S90	91	URGENT	OCLE 1/83s	0 1 1 0
S91	92	URGENT	OCLE 1/84s	0 1 1 0
S92	93	URGENT	OCLE 1/85s	0 1 1 0
S93	94	URGENT	OCLE 1/86s	0 1 1 0
S94	95	URGENT	OCLE 1/87s	0 1 1 0
S95	96	URGENT	OCLE 1/88s	0 1 1 0
S96	97	URGENT	OCLE 1/89s	0 1 1 0
S97	98	URGENT	OCLE 1/90s	0 1 1 0
S98	99	URGENT	OCLE 1/91s	0 1 1 0
S99	100	URGENT	OCLE 1/92s	0 1 1 0
S100	101	URGENT	OCLE 1/93s	0 1 1 0
S101	102	URGENT	OCLE 1/94s	0 1 1 0
S102	103	URGENT	OCLE 1/95s	0 1 1 0
S103	104	URGENT	OCLE 1/96s	0 1 1 0
S104	105	URGENT	OCLE 1/97s	0 1 1 0
S105	106	URGENT	OCLE 1/98s	0 1 1 0
S106	107	URGENT	OCLE 1/99s	0 1 1 0
S107	108	URGENT	OCLE 1/100s	0 1 1 0
S108	109	URGENT	OCLE 1/101s	0 1 1 0
S109	110	URGENT	OCLE 1/102s	0 1 1 0
S110	111	URGENT	OCLE 1/103s	0 1 1 0
S111	112	URGENT	OCLE 1/104s	0 1 1 0
S112	113	URGENT	OCLE 1/105s	0 1 1 0
S113	114	URGENT	OCLE 1/106s	0 1 1 0
S114	115	URGENT	OCLE 1/107s	0 1 1 0
S115	116	URGENT	OCLE 1/108s	0 1 1 0
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S128	129	URGENT	OCLE 1/121s	0 1 1 0
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S137	138	URGENT	OCLE 1/130s	0 1 1 0
S138	139	URGENT	OCLE 1/131s	0 1 1 0
S139	140	URGENT	OCLE 1/132s	0 1 1 0
S140	141	URGENT	OCLE 1/133s	0 1 1 0
S141	142	URGENT	OCLE 1/134s	0 1 1 0
S142	143	URGENT	OCLE 1/135s	0 1 1 0
S143	144	URGENT	OCLE 1/136s	0 1 1 0
S144	145	URGENT	OCLE 1/137s	0 1 1 0
S145	146	URGENT	OCLE 1/138s	0 1 1 0
S146	147	URGENT	OCLE 1/139s	0 1 1 0
S147	148	URGENT	OCLE 1/140s	0 1 1 0
S148	149	URGENT	OCLE 1/141s	0 1 1 0
S149	150	URGENT	OCLE 1/142s	0 1 1 0
S150	151	URGENT	OCLE 1/143s	0 1 1 0
S151	152	URGENT	OCLE 1/144s	0 1 1 0
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S167	168	URGENT	OCLE 1/160s	0 1 1 0
S168	169	URGENT	OCLE 1/161s	0 1 1 0
S169	170	URGENT	OCLE 1/162s	0 1 1 0
S170	171	URGENT	OCLE 1/163s	0 1 1 0
S171	172	URGENT	OCLE 1/164s	0 1 1 0
S172	173	URGENT	OCLE 1/165s	0 1 1 0
S173	174	URGENT	OCLE 1/166s	0 1 1 0
S174	175	URGENT	OCLE 1/167s	0 1 1 0
S175	176	URGENT	OCLE 1/168s	0 1 1 0
S176	177	URGENT	OCLE 1/169s	0 1 1 0
S177	178	URGENT	OCLE 1/170s	0 1 1 0
S178	179	URGENT	OCLE 1/171s	0 1 1 0
S179	180	URGENT	OCLE 1/172s	0 1 1 0
S180	181	URGENT	OCLE 1/173s	0 1 1 0
S181	182	URGENT	OCLE 1/174s	0 1 1 0
S182	183	URGENT	OCLE 1/175s	0 1 1 0
S183	184	URGENT	OCLE 1/176s	0 1 1 0
S184	185	URGENT	OCLE 1/177s	0 1 1 0
S185	186	URGENT	OCLE 1/178s	0 1 1 0
S186	187	URGENT	OCLE 1/179s	0 1 1 0
S187	188	URGENT	OCLE 1/180s	0 1 1 0
S188	189	URGENT	OCLE 1/181s	0 1 1 0
S189	190	URGENT	OCLE 1/182s	0 1 1 0
S190	191	URGENT	OCLE 1/183s	0 1 1 0
S191	192	URGENT	OCLE 1/184s	0 1 1 0
S192	193	URGENT	OCLE 1/185s	0 1 1 0
S193	194	URGENT	OCLE 1/186s	0 1 1 0
S194	195	URGENT	OCLE 1/187s	0 1 1 0
S195	196	URGENT	OCLE 1/188s	0 1 1 0
S196	197	URGENT	OCLE 1/189s	0 1 1 0
S197	198	URGENT	OCLE 1/190s	0 1 1 0
S198	199	URGENT	OCLE 1/191s	0 1 1 0
S199	200	URGENT	OCLE 1/192s	0 1 1 0
S200	201	URGENT	OCLE 1/193s	0 1 1 0
S201	202	URGENT	OCLE 1/194s	0 1 1 0
S202	203	URGENT	OCLE 1/195s	0 1 1 0
S203	204	URGENT	OCLE 1/196s	0 1 1 0
S204	205	URGENT	OCLE 1/197s	0 1 1 0
S205	206	URGENT	OCLE 1/198s	0 1 1 0
S206	207	URGENT	OCLE 1/199s	0 1 1 0
S207	208	URGENT	OCLE 1/200s	0 1 1 0
S208	209	URGENT	OCLE 1/201s	0 1 1 0
S209	210	URGENT		

### 3.2. Warning Signs



# Sigma XT Generic Warning Signs

Rev 1.2

#### Indoor Warning Signs

Part No: FP-92300	Part No: FP-92400	Part No: FP-92500

#### Weatherproof Warning Signs

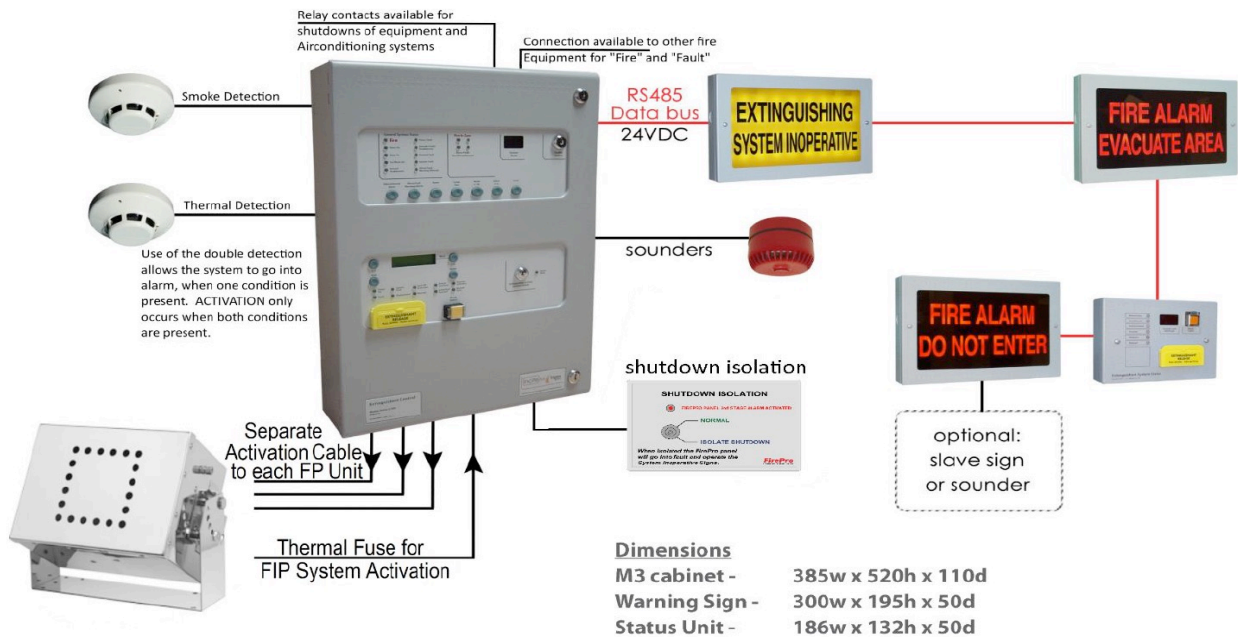
Part No: FP-92100	Part No: FP-92200	Part No: FP-92600
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#### FEATURES

- Matches design and colour scheme for Sigma XT FIP
- High Brightness LEDs
- Split level function
- Multiple signs per circuit(dependent on supply voltage)
- Internal Buzzer with disable function

#### Technical Data

	INDOOR	WEATHERPROOF
Power	15-30VDC	
Current – Max	140 mA	
Current -Quiesant	20 mA	
Construction	1.2mm mild sheet steel	Base Thermoplastic
Colour	BS 00 A 05 grey texture	Lid polycarbonate
IP Rating	IP40	IP55
Size	300 x 195 x 50	300 x 220 x 75



Fire suppression systems backed by **research**, committed to **people** and the **environment**

### 3.3. Traffolyte ID & Warning Signage external

Date: 24.06.21  
Ref: 66805  
Rev: A  
PO: IM220621



CMYK - 0 16 100 0  
Sign & Display  
High Quality





Reinventing  
Fire Suppression

# FP-09500 Fire Rated Screened Cable

Rev 1



RAMFireCRO-F3 - Fire Resistant Cable, low smoke, Halogen Free

### Application

Suitable for the connection between the sensors and the control of fire detection systems are required when special features such as: fire resistance, reduced emission of opaque smoke, the reduced emission of toxic and corrosive gases and halogen-free.

### Technical Data & Standard References

Fire Performance	EN 50200 PH120 IEC 60331-21
Test on Single Cable	IEC 60332-1
Test on Bunched Cables	IEC 60332-3
Limiting Oxygen Prefix	Min 37%
Smoke Density	IEC 61034
Amount of halogen acid gas	IEC 60754-1 Max 0.5%
Acidity (PH value) and conductivity	IEC 60754-2

### Construction

Formation	2 Core
Conductor Cross Section	0.75mm <sup>2</sup>
Conductor	Plain Annealed copper wire, multistrand
Insulation	Special mix Silicon Rubber
Colour Code	Black, Red
Wrapping	I layer plastic tape 0.023mm
Collective screen	0.026mm Aluminium / PETP tape over tinned copper drain wire
Outer Sheath	THERMOPLASTIC Low Smoke, Halogen Free – LSZH - Red
Outer Diameter (nominal)	6.3mm

### Electrical & Mechanical Data

DC Resistance per Core at 20°C	Max 27.1 Ω/km
Insulation Resistance at 20°C	Min 200 MΩ*km
Mutual Capacitance	Max 115 nF/km
Inductance	Max MH/km 1
Test Voltage Core / Core /Screen	2000 V
L/R Ratio	Max 25 μH/Ω
Operating Voltage	300 V
Temperature Range	-40°C to +75°C
Minimum Bend Radius	50mm
Weight Approx	61kg / km







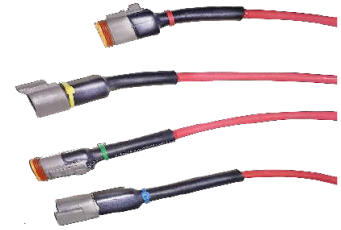
Reinventing  
Fire Suppression

# Wiring Looms Splitter Cables

Rev 1.3

## WIRING LOOMS

Systems are prepared using wiring Looms. These looms use 0.75mm stranded class 5 shielded fire Rated Cables. These are coloured red in accordance with Australian Standards for fire systems. The cables are colour coded using coloured cable ties:



The connections are made using Deutsch Plugs(DT Series) and these are provided in the kit for each system

## SPLITTER CABLE

Where multiple FirePro generators are used, the activation splitter cables can be used. These are fitted in the cable assembly – this is important for the monitoring and activation circuits.



## DEUTSCH PLUGS – DT Series

Deutsch Plugs (DT Series) environmentally sealed connectors are designed specifically for cable to cable applications. The connectors are suitable for harsh environment applications where even a small degradation in connection may be critical. Thermoplastic housings offer a wide operating temperature range -55°C to 125°C and silicone rear wire and interface seals allow the connectors to withstand dust and moisture rated to **IP68**. Suitable for up to 13 amps continuous. Contacts: Copper Alloy, Nickel Plated

DT series have been successfully tested to the 20 mm Flammability Test per Standard UL-94.

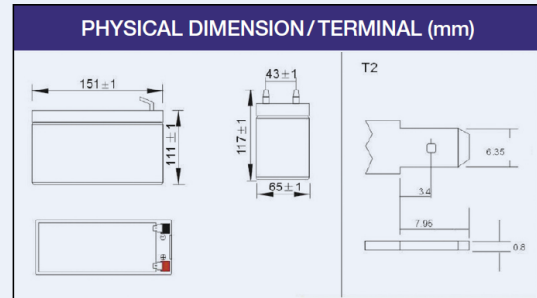


For crimping the connector pins we recommend using the correct Deutsch Crimping tool as shown.

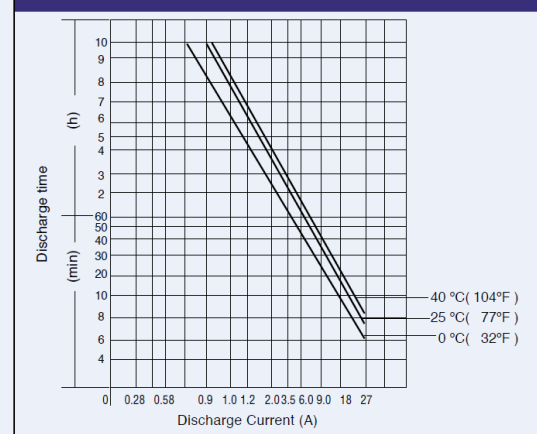


### 3.5. Battery

# PS12100 Specifications



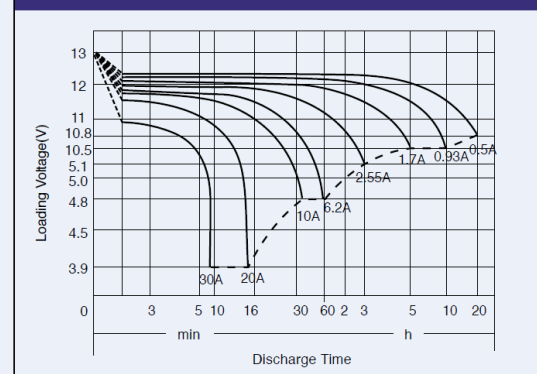
**DISCHARGING CURRENT & DISCHARGE DURATION TIME**



PHYSICAL SPECIFICATION		
Nominal Voltage		12V
Nominal Capacity (20HR)		10AH
Dimension	Length	151 ± 1mm (5.95 inches)
	Width	65 ± 1mm (2.56 inches)
	Container Height	111 ± 1mm (4.37 inches)
	Total Height (with Terminal)	117 ± 1mm (4.61 inches)
Weight		Approx 3.30kg (7.28lbs)
Terminal Type		T2

ELECTRICAL SPECIFICATION					
Rated Capacity	20 hour rate (500mA)	10.00AH	Constant-Voltage Charge	Cycle	Initial Charging Current less than 3.6A. Voltage 14.4V-15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	10 hour rate (930mA)	9.3AH			
	5 hour rate (1.70A)	8.5AH			
	1 hour rate (6.20A)	6.2AH			
	15minute rate (19.6A)	4.9AH			
Capacity affected by Temperature	40°C (104°F)	103%	Standby	No limit on Initial Charging Current Voltage 13.5V-13.8V at 25°C (77°F) Temp. Coefficient -20mV/°C	
	25°C (77°F)	100%			
	0°C (32°F)	86%			

**DISCHARGE CHARACTERISTICS (25°C, 77°F)**



**CONSTANT CURRENT (AMP) AND CONSTANT POWER (WATT) DISCHARGE TABLE 7°F**

Amp/Watt	Time (minute)	Final voltage/Cell	5	10	15	20	30	45	60	120	180	300	600	1200
A			40.00	28.50	19.60	16.00	11.50	8.00	6.20	3.50	2.55	1.70	0.93	0.50
W			71.60	53.60	37.30	31.30	22.60	15.90	12.30	6.96	5.07	3.40	1.86	1.01

Trade Enquiries 1300 362 287  
[www.centurybatteries.com.au](http://www.centurybatteries.com.au)



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