Gas Suppression Detection Control Panels and Devices

Product Catalogue

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Suppression Panels

Field Devices - Conventional

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Common Field Devices

Suppression Panels - Conventional

Models ESG-1001-R & ESG-1002-R
Single Area Extinguishing Release Control Panels

Features

□ Single flooding area

□ 3 detection zones

□ Approvals: BSI, KM663489, CE, EN12094-1, EN54-2, EN54-4

□ Time and date stamped event log

□ Fully configurable zone voting for gas release

□ 4 programmable sounder circuits

□ Configurable sounder delays

□ Zero-time delay option for manual call points

□ Extinguishing delay 0-60 seconds

□ Extinguishing duration 1-300 seconds

□ RS 485 communications for remote status units

□ Access controls via key switch or code entry

□ Compatible with IS barriers

□ Non-latching zone input option

□ Flooding time 60-1800 seconds

□ Extract time 1-900 seconds

□ Graphical back lit LCD display

□ Alarm counter

□ Optional key switch status

Technical Specifications	
Enclosure	1.2mm Mild Steel IP30. Colour ref MW334E Interpon Powder coat
Cable entry	21 knockouts in enclosure top 8 in enclosure rear
Dimensions back box	350 W x 300 H x 80 D (mm)
Dimensions lid	357 W x 310 H x 25 D (mm)
Mains supply	1.2A (ESG-1001-R) or 3.4A (ESG-1002-R) universal switch mode PSU
Battery Capacity	Up to 7 Ah 24V
Charger Current	700mA
Auxiliary supply	400mA aux supply output (21-28vdc)
Detection Zones	3 x conventional zones
Extinguishing Zones	1 x flooding/extinguishing zones support for metron & solenoid type actuators
Sounder Circuits	4 x 400mA 21-28vdc
On Board Relays	6 x 1A 30VDC relay outputs, (fre, fault, stage 1 & 2, extract, local) x1
Programmable outputs	Additional outputs via add on OPCARD-8.
Switch Inputs (monitored)	2 programmable CC, PULS, (Flow, Pressure, Release, Hold, Abort) X 1
Countdown Timer	On Board via Graphic LCD
Event log	999 events, time & date stamped
Earth fault monitoring	Yes
Intrinsically safe operation	Selectable for detection zones
Remote status Units	Graphic display & Mini version via RS485 up to 16 assignable to area
Display	240 x 64 Graphical LCD backlit
Controls	Silicon keypad & optional key-switch
Manual release button	Onboard under plastic release cover

Approvals registered under Haes Systems Ltd

Suppression Panels - Conventional

Models ESG-1001-R & ESG-1002-R
Single Area Extinguishing Release Control Panels

Electrical Specification Inputs & Outputs - PSU PCB - TPCA019		
PSU Input +/-	29.5 vdc supply input. Diode protected for reversal and independent short circuit. Max current 5 amps.	Max input current 5 amps. Input voltage 29.5 vdc to 30 vdc.
28v+, 0v- power output	28vdc supply output for fre alarm accessory relays etc. Max continuous use = 400mA.	Fused @ 500mA. Fuse = 500mA resettable fuse.
Common fire relay	Fire relay contact. Clean C/O. Max 3A @ 30vdc.	Unfused
Common fault relay	Maintained fault relay contact. Clean C/O Max 3A @ 30vdc.	Unfused
Inputs; CC, PUL,	Switched -ve inputs, connect to 0v to trigger. Max input voltage = 30vdc. Non latching, max resistance 100R.	Protected via 10K Ohm impedance, 3v6 Zener diode.
SNDR 1 - 2	28vdc polarity reversal monitored sounder outputs to fire alarm devices. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit.
PBUS output + / -	RS485	RSU Comms, fused @ 20mA
Temp sense input * *	Input for connection of battery temperature sensor, Attach to central point of sealed lead acid battery pair.	Thermistor TTC5103 10,000 Ohms @ 25 Deg

Electrical Specification Inputs & Outputs - GAS CARD PCB - TPCA018		
Zone 1 – 3 +/ -	Fire alarm zone circuits. Conventionally wired detection circuit. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 42mA. Max 32 devices per zone.
1st stage sounder output +/- 2nd stage sounder output +/-	28vdc polarity reversal monitored sounder output to fire alarm devices. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit.
Ext OP +/-	Extinguishing Release Output. 28vdc polarity reversal monitored output to Solenoids or Metron actuators. 1N4002 diode EOL, Circuit parameters learnt during commissioning.	21- 30 Vdc 1A continuous rated for solenoids 3A @ 450mS available for metron actuators
Monitored inputs, (6) Flow SW, Press SW, Man rel, Hold, Abort, Auto/Man (+/-)	End of line resistor 6K8, thresholds 8K to 1K2 normal, 1K1 to 150R active (nominal 470R), 150R to 0R Short circuit	Monitoring current limit 14mA
1st stage relay, 2nd stage relay, extract fan, local fre relay C/NC/NO	Auxiliary relay contacts. Clean C/O. Max 3A @ 30vdc.	Unfused

Power Supply Specification		
Mains supply	230vac +10% / -15% 50Hz max current 0.347Amp (35W) 1.08A (100W)	
Mains supply fuse	2 Amp (T2A 250V) 35W unit	Not accessible for servicing. Internal to switch mode power unit
Internal power supply rating	1.2 Amps total including battery charging	Maximum load shared between outputs = 1A
Power supply output voltage	19.8 - 29.7vdc	Tolerance +/- 0.1%
Maximum continuous load for battery standby (ImaxA)	ImaxA = 400mA	ImaxB not specifed
Maximum ripple	150 mV p-p	Supply and charger fault monitored
Min/max battery size and type	2 x 3.2Ah 12v VRLA (minimum) - 2 x 7Ah 12v VRLA (maximum). Use Yuasa NP range batteries	
Battery charging voltage	27.3 vdc nominal at 20 deg C	Temperature compensated
Battery charging output current	700mA Current limited	Charging suppressed during alarm condition
Battery high impedance fault (Batt Hi Z)	Resistance > 1 Ohm	1 hour reporting time
Max current drawn from batteries	5 Amps with main power source disconnected. Battery fuse 5A (5x20 glass, quickblow)	
Min current supplied by PSU Imin	40mA	

Quiescent and Alarm Current Details for Standby Battery Calculations		
Model	Standby Current	Alarm Current
ESG-1001- R single area control panel	145mA	265mA

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Suppression Panels - Conventional

Models ESG-1003-R
Dual Area Extinguishing Release Control Panels

Features
☐ Dual flooding areas
☐ 6 detection zones
☐ Approvals: BSI, KM663489, CE, EN12094-1, EN54-2, EN54-4
☐ Time and date stamped event log
☐ Fully configurable zone voting for gas release
☐ 6 programmable sounder circuits
☐ Configurable sounder delays
☐ Zero time delay option for manual call points
☐ Compatible with IS barriers
☐ Non-latching zone input option
☐ Extinguishing delay 0-60 seconds
☐ Extinguishing duration 1-300 seconds
☐ Flooding time 60-1800 seconds
☐ Extract time 1-900 seconds
☐ Graphical back lit LCD display
☐ Access controls via key switch or code entry
☐ Alarm counter
☐ RS 485 communications for remote status units
☐ Optional key switch status control

Technical Specifications	
Enclosure	1.2mm Mild Steel IP30. Colour ref MW334E Interpon Powder coat
Cable entry	21 knockouts in enclosure top 8 in enclosure rear
Dimensions back box	450 W x 385 H x 100 D (mm)
Dimensions lid	463 W x 394 H x 25 D (mm)
Mains supply	3.4A universal switch mode PSU
Battery Capacity	Up to 18 Ah 24V
Charger Current	700mA
Auxiliary supply	400mA aux supply output (21-28vdc)
Detection Zones	6 x conventional zones
Extinguishing Zones	2 x flooding/extinguishing zones support for metron & solenoid type actuators
Sounder Circuits	6 x 400mA 21-28vdc
On Board Relays	10 x 1A 30VDC relay outputs, (fire, fault, stage 1 & 2, extract, local) x2
Programmable outputs	Additional outputs via add on OPCARD-8. (1 card per flood zone)
Switch Inputs (monitored)	2 programmable CC, PULS, (Flow, Pressure, Release, Hold, Abort) X 2
Countdown Timer	On Board via Graphic LCD
Event log	999 events, time & date stamped
Earth fault monitoring	Yes
Intrinsically safe operation	Selectable for detection zones
Remote status Units	Graphic display & Mini version via RS485 up to 16 assignable to area
Display	240 x 64 Graphical LCD backlit
Controls	Silicon keypad & optional key-switch
Manual release button	Onboard under plastic release cover

Approvals registered under Haes Systems Ltd

Suppression Panels - Conventional

Models ESG-1003-R
Dual Area Extinguishing Release Control Panels

Electrical Specification Inputs & Outputs - PSU PCB - TPCA019		
PSU Input +/-	29.5 vdc supply input. Diode protected for reversal and independent short circuit. Max current 5 amps.	Max input current 5 amps. Input voltage 29.5 vdc to 30 vdc.
28v+, 0v- power output	28vdc supply output for fre alarm accessory relays etc. Max continuous use = 400mA.	Fused @ 500mA. Fuse = 500mA resettable fuse.
Common fire relay	Fire relay contact. Clean C/O. Max 3A @ 30vdc.	Unfused
Common fault relay	Maintained fault relay contact. Clean C/O Max 3A @ 30vdc.	Unfused
Inputs; CC, PUL,	Switched -ve inputs, connect to 0v to trigger. Max input voltage = 30vdc. Non latching, max resistance 100R.	Protected via 10K Ohm impedance, 3v6 Zener diode.
SNDR 1 - 2	28vdc polarity reversal monitored sounder outputs to fire alarm devices. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit.
PBUS output + / -	RS485	RSU Comms, fused @ 20mA
Temp sense input * *	Input for connection of battery temperature sensor, Attach to central point of sealed lead acid battery pair.	Thermistor TTC5103 10,000 Ohms @ 25 Deg

Electrical Specification Inputs & Outputs - GAS CARD PCB - TPCA018		
Zone 1 – 3 +/ -	Fire alarm zone circuits. Conventionally wired detection circuit. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 42mA. Max 32 devices per zone.
1st stage sounder output +/- 2nd stage sounder output +/-	28vdc polarity reversal monitored sounder output to fire alarm devices. 6K8 Ohm 5% 0.25W EOL resistor.	Monitoring current limit 28mA, fused @ 500mA. Typical max load 22 devices @ 18mA each per circuit.
Ext OP +/-	Extinguishing Release Output. 28vdc polarity reversal monitored output to Solenoids or Metron actuators. 1N4002 diode EOL, Circuit parameters learnt during commissioning.	21- 30 Vdc 1A continuous rated for solenoids 3A @ 450mS available for metron actuators
Monitored inputs, (6) Flow SW, Press SW, Man rel, Hold, Abort, Auto/Man (+/-)	End of line resistor 6K8, thresholds 8K to 1K2 normal, 1K1 to 150R active (nominal 470R), 150R to 0R Short circuit	Monitoring current limit 14mA
1st stage relay, 2nd stage relay, extract fan, local fre relay C/NC/NO	Auxiliary relay contacts. Clean C/O. Max 3A @ 30vdc.	Unfused

Power Supply Specification		
Mains supply	230vac +10% / -15% 50Hz max current 0.347Amp (35W) 1.08A (100W)	
Mains supply fuse	4 Amp (T4A 250V) 100W unit	Not accessible for servicing. Internal to switch mode power unit
Internal power supply rating	3.4 Amps total including battery charging	Maximum load shared between outputs = 3A
Power supply output voltage	19.8 - 29.7vdc	Tolerance +/- 0.1%
Maximum continuous load for battery standby (ImaxA)	ImaxA = 650mA	ImaxB not specifed
Maximum ripple	150 mV p-p	Supply and charger fault monitored
Min/max battery size and type	2 x 3.2Ah 12v VRLA (minimum) - 2 x 18Ah 12v VRLA (maximum). Use Yuasa NP range batteries	
Battery charging voltage	27.3 vdc nominal at 20 deg C	Temperature compensated
Battery charging output current	700mA Current limited	Charging suppressed during alarm condition
Battery high impedance fault (Batt Hi Z)	Resistance > 1 Ohm	1 hour reporting time
Max current drawn from batteries	5 Amps with main power source disconnected. Battery fuse 5A (5x20 glass, quickblow)	
Min current supplied by PSU Imin	40mA	

Quiescent and Alarm Current Details for Standby Battery Calculations		
Model	Standby Current	Alarm Current
ESG-1003- R dual area control panel	200mA	365mA

Suppression Panels - Conventional

Sigma XT +
Multi-Area Extinguishing Control Panel

Features

□ Approved to EN12094-1, EN54-2 and EN54-4

□ 2,4 or 8 detection zones

□ 1 to 4 extinguishant areas

□ Dual extinguishant outputs for each area (configurable as Main / Reserve)

□ First and second stage sounder outputs for each area

□ First and second stage volt free changeover contacts for each area

□ Released volt free contact per area

□ Fault volt free contact per area

□ Programmable extinguishant delays

□ Programmable output duration

□ Extract fan control

□ Countdown indicator shows time until release in seconds

□ Mode select and manual release controls per area

□ Monitored remote manual release input

□ Monitored remote Hold input

□ Monitored remote Mode selector (indoor interlock) input

□ Monitored remote Released pressure switch input

□ Monitored remote Low pressure switch input

□ Monitored Abort input

□ Serial connection for Sigma Si status units and ancillary boards (K588)

Product Overview

□ Sigma XT+ control panels are multi-area extinguishant control panels complying with EN12094-1, EN54-2 and EN54-4. Up to 8 zones of conventional detection with up to 4 extinguishant areas are available.

□ Each extinguishant area has a comprehensive set of inputs and outputs and is configurable via a simple programming interface. All extinguishant areas may have up to 7, serially connected sigma Si status indication and control units or ancillary relay boars connected via a simply 4 core cable.

□ The versatility of the control panel can be enhanced further by the fitting of up to 7 Sigma CP Ancillary boards (K580) or Sigma CP Sounder boards (K461) to the RS465 serial bus. See data sheet DS39 and DS48.

□ For compatible status units see Sigma Si data sheet DS41.

Model No. K21082M3

BS-EN12094-1
KM 96761

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Suppression Panels - Conventional

Sigma XT +
Multi-Area Extinguishing Control Panel

Technical Specifications

Construction	-	1.2mm mild sheet steel
IP Rating	-	IP30
Finish	-	Epoxy powder coated
Colour - lid & box	-	BS 00 A 05 grey - fine texture
Colour - controls plate & labels	-	RAL 7047 light grey - satin
Weight	-	8kg (standard panel)
Mains supply	-	230V AC +10%/-15% (100 Watts maximum)
Mains supply fuse	-	1.6 Amp (F1.6A L250V)
Power supply rating (1 & 2 area units)	-	3 Amps total including battery charge 28V +/- 2V
Power supply rating (3 & 4 area units)	-	5.25Amps total including battery charge 28V +/- 2V
Maximum ripple current	-	200 millivolts
Battery charge voltage	-	27.6VDC nominal (temperature compensated)
Battery charge current	-	0.7A maximum
Battery fuse	-	20mm, 3.15A glass
Current draw in mains fail condition	-	54 milliamps per module
Max. current draw from batteries	-	3A (K21021, K21041, K21042, K21081, K21082)
		4A (K21083, K21084)
Sigma + module Aux 24V output	-	Fused at 500mA with electronic fuse
Sigma CP Aux 24V output	-	24V Fused at 500mA with electronic fuse – 1 per extinguishant area
1st and 2nd stage sounder outputs	-	21 to 28V DC fused at 1A with electronic fuse
Fault relay contact rating	-	5 to 30VDC 1A Amp maximum
Fire relay contact rating	-	5 to 30VDC 1A Amp maximum
Local fire relay contact rating	-	5 to 30VDC 1A Amp maximum
First stage contact rating	-	5 to 30VDC 1A Amp maximum
Second stage contact rating	-	5 to 30VDC 1A Amp maximum
Extract contact rating	-	5 to 30VDC 1A Amp maximum
Zone quiescent current	-	0mA minimum, 2mA maximum
Terminal capacity	-	0.5mm² to 2.5mm² solid or stranded wire
Number of detectors per zone	-	Dependent on type – typically 20
Number of sounders per circuit	-	Dependent on type and current consumption – typically 20+
Detection circuit end of line	-	6K8 5% ½ Watt resistor
Monitored input end of line	-	6K8 5% ½ Watt resistor
Sounder circuit end of line	-	10K 5% ¼ Watt resistor
Extinguishant output end of line	-	1N4004 Diode
No. of detection circuits	-	2 to 8, 21-28V DC
No. of sounder circuits	-	Dependent on model, 21-28V DC
Extinguishant release output	-	21 – 28v DC. Fused at 1 Amp
Extinguishant release delay	-	Adjustable 0 to 60 seconds (+/-10%)
Extinguishant release duration	-	Adjustable 60 to 300 seconds
SIL, AL, FLT, RST inputs	-	Switched -ve, min resistance 0 ohms, max resistance 100 Ohms
Zone normal threshold (allowable EOL)	-	10K ohms to 2K ohms
Detector alarm threshold	-	1K ohms to 390 ohms
Call point alarm threshold	-	370 ohms to 150 ohms
Short circuit threshold	-	130 ohms to 0 ohms
Head removal condition	-	15.5 to 17.5 volts
Cabling	-	FP200 or equivalent (max. capacitance 1uFmax inductance 1mH)
Monitored inputs normal threshold (allowable EOL)	-	10K ohms to 1K ohms
Monitored inputs alarm threshold	-	2K ohms to 150 ohms +/-5%
Monitored inputs Short circuit threshold	-	140 ohms to 0 ohms +/-5%
Status unit / Ancillary board connection	-	Two wire RS485 connection (EIA-485 specification)
Status unit power output	-	21-28V DC. Fused at 500mA with electronic fuse

Panels

Product Code	Zones	Areas	Size (mm)
K21021M3	2	1	385 x 520 x 110
K21041M3	4	1	385 x 520 x 110
K21042M3	4	2	385 x 520 x 110
K21081M3	8	1	385 x 520 x 110
K21082M3	8	2	385 x 520 x 110
K21083M4	8	3	385 x 700 x 145
K21084M4	8	4	385 x 700 x 145

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Suppression Panels - Conventional

Sigma A-XT
Extinguishing Control Panel

Features

□ UL864 and FM listed

□ Three initiation circuits as standard

□ Any single zone or any combinations of zones can be configured to release

□ Configurable first stage NAC delays

□ Configurable detection delays

□ Zero time delay upon manual release option

□ Compatible with I.S. barriers

□ Non-latching zone input option to receive signals from other systems such as aspirating equipment

□ Configurable releasing delays up to 60 seconds in 5 second steps

□ Configurable releasing duration up to 5 minutes in 5 second steps

□ Countdown timer shows time remaining until release

□ Supports up to seven, four wire status indicators

□ Built in Extract Fan control

Programmable Functions

Access Level 2

□ Test Zones 1 to 3
□ Disable Zones 1 to 3
□ Disable 1st Stage Alarms
□ Disable Pre-activated 1st Stage Relay
□ Disable Pre-activated 2nd Stage Relay
□ Disable Extract Fan Output
□ Disable Manual Release Input
□ Disable Releasing Sub System
□ Activate Extract Fan Output
□ Activate Alarm Delay

Access Level 3

□ Sounder Delay
□ Coincidence Detection
□ Disable Panel Features
□ Zone Alarm Delays (Detectors)
□ Zone Alarm Delay (Call Points)
□ Configure Zone for I.S Barrier Use
□ Zone Short Circuit Alarm
□ Zone Non Latching
□ Zone Inputs Delay
□ Extinguishant Release Time Delay
□ Extinguishant Release Duration Timer
□ Extinguishant Reset Delay Timer

Product Overview

□ Designed and manufactured to the highest standards in a quality controlled environment and with European EN12094-1 approvals, the Sigma XT extinguishing releasing panel offers outstanding value and performance for all small to medium fixed firefighting installations.

□ With three detection zones as standard, extinguishant release can be configured to activate from any combination of detection zone inputs to allow (among other combinations) any two from three type activations such as would be required for detection in ceiling void, room and floor void applications.

□ The extensive configuration options of the Sigma XT allow the functionality of the system to be extensively modified while still complying with the requirements of the controlling standard for the equipment (EN12094-1, EN54-2 and EN54-4).

□ The panel contains a large LED display to enable easy configuration and control which also displays the time remaining until extinguishant release for added user safety.

□ The countdown timer is duplicated on up to seven remote status units to provide local indication of the extinguishant system status.

□ With all of the electronics mounted on a single, easily removable, steel plate Sigma XT panels are both robust and easy to install.

□ Sigma XT is supplied in an enclosure that matches the design and colour of the Sigma CP range.

Model No. K1810-12

Approvals registered under Kentec Electronics Ltd

Suppression Panels - Conventional

Sigma A-XT
Extinguishing Control Panel

Technical Specifications

Construction	-	1.2mm mild sheet steel
IP Rating	-	IP30
Finish	-	Epoxy powder coated
Colour - lid & box	-	Red RAL 3002 (optional grey BS 00 A 05 semi-matt)
Mains supply	-	230V AC or 115V AC
Mains supply fuse	-	1.6 Amp (F1.6A L250V)
Power supply rating	-	3 Amps total including battery charge 28V +/- 2V
Maximum ripple current	-	200 millivolts
Battery type (Yuasa NP)	-	Two 12 Volt 7Ah sealed lead acid in series
Battery charge voltage	-	27.6VDC nominal (temperature compensated)
Battery charge current	-	0.7A maximum
Battery fuse	-	20mm, 3.15A glass
Maximum current draw from batteries	-	3 Amps
Quiescent current of panel in mains fail	-	0.095A
R0V output	-	Fused at 500mA with electronic fuse
Sounder outputs	-	24V Fused at 500mA with electronic fuse
Fault relay contact rating		30VDC 1A Amp maximum
Fire relay contact rating	-	30VDC 1A Amp maximum
Local fire relay contact rating	-	30VDC 1A Amp maximum
First stage contact rating	-	30VDC 1A Amp maximum
Second stage contact rating	-	30VDC 1A Amp maximum
Extract contact rating	-	30VDC 1A Amp maximum
Zone quiescent current	-	2mA maximum
Terminal capacity	-	12 AWG
Number of detectors per zone	-	Dependent on type (maximum 32)
NAC rating	-	0.5A per circuit
Detection circuit end of line	-	6K8 5% ½ Watt resistor
Monitored input end of line	-	6K8 5% ½ Watt resistor
Sounder circuit end of line	-	10K 5% ¼ Watt resistor
Extinguishant output EOL	-	1N4004 Diode
No. of initiating circuits	-	3
No. of NAC circuits	-	2 x 1st Stage, 1 x 2nd Stage
Extinguishant release output	-	Fused at 1 Amp
Extinguishant release delay	-	Adjustable 0 to 60 seconds (in 5 second steps)
Extinguishant release duration	-	Adjustable 60 to 300 seconds (in 5 second steps)
SIL, AL, FLT, RST inputs	-	Switched -ve, max resistance 100 Ohms
Zone normal threshold	-	8K ohms to 1K ohms
Detector alarm threshold	-	999 ohms to 400 ohms
Call point alarm threshold	-	399 ohms to 100 ohms
Short circuit threshold	-	99 ohms to 0 ohms
Monitored inputs normal threshold	-	8K ohms to 1K ohm
Monitored inputs alarm threshold	-	999 ohms to 100 ohms
Monitored inputs Short circuit threshold	-	99 ohms to 0 ohms
Status unit/Ancillary board connection	-	Two wire RS485 connection
Status unit power output	-	Fused at 500mA with electronic fuse

Panels

Product Code	Description	Size (mm)
K1810-12	Surface mounted panel – Red 115V	368 x 310 x 90
K1810-44	Surface mounted panel – Grey 115V	368 x 310 x 90
K1810-13	Surface mounted panel – Red 230V	368 x 310 x 90
K1810-43	Surface mounted panel – Grey 230V	368 x 310 x 90

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Suppression Panels - Conventional

Sigma A-Si
Extinguishing Status Indicators

Features

☐ UL864 and FM listed

☐ High brightness LEDs

☐ Detailed indication of the status of the control panel

☐ Supervised data connection

☐ Countdown timer shows time remaining until release

☐ Manual only and Automatic & Manual mode select keyswitch option

☐ Four wire connection (data and power)

☐ Protected dual action manual release switch option

☐ Option for zonal fire and trouble indication with buzzer

☐ Robust, high quality enclosure

☐ Easy access to terminals

☐ Remote Auto/Manual door interlock input (supervised)

☐ Remote Abort input (supervised)

☐ Internal trouble diagnosis indicators

Disablement Switch Features

☐ Key removable in either position

☐ Both sides of solenoid circuit are mechanically disabled during activation

☐ Disablement illuminated at panel when active

Product Overview

☐ The Sigma A-Si range of status indicators provide detailed status information for Sigma A-XT releasing control equipment.

☐ All models provide high brightness, LED indication of Manual Only, Automatic and Manual, Abort operated, Disabled, Imminent and Released conditions. Models are also available with zonal fire indicators and a common trouble indicator.

☐ For systems where local control of the Automatic / Manual mode and or a Manual extinguishant release control are required, units are available with these controls fitted.

☐ All models have supervised inputs for the remote connection of Automatic / Manual mode and abort switches.

☐ All units contain a large, LED display which shows a countdown of the time remaining until release in seconds.

Abort Switch Product Overview

☐ The Sigma A-XT Abort switch connects to the Abort terminals of the Sigma A-XT releasing panel. Any number of Sigma A-XT Abort switches may be connected to the circuit.

☐ The last switch must have the end of line device from the Abort circuit terminals of the Sigma A-XT releasing panel fitted across its connections to provide open and short circuit supervision.

☐ The unit is supplied mounted to a rugged steel enclosure but may also be flush mounted to a single gang electrical box.

Model No. K1832-10   Model No. K1823-10

Model No. K1821-19

Model No. K1821-11   Model No. K1821-15   Model No. K1821-13   Model No. K1821-17

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Suppression Panels - Conventional

PFC-4410-RC
Extinguishing Status Indicators

Features

- □ Multi-Hazard Operation
- □ Four Class B Initiating Circuits
- □ Two Class B Supervisory Circuits **
- □ Four Class B Output Circuits
- □ Programmable Cross Zoning
- □ Supervised Microprocessor
- □ 32 Character Alpha-Numeric LCD Display
- □ Custom Banner Message and Zone Description text
- □ Custom Zone Description Text
- □ On Board Menu Driven Programming Controls
- □ Releasing Circuits Protected From False Activation
- □ Continuous or Timed Discharge
- □ 40 Event History Buffer
- □ Walktest with Automatic Time-out
- □ Alarm, Trouble Supervisory, and Waterflow relays
- □ Optional Class A Initiating Zone and output module
- □ 34 character LED supplemental display
- □ 24 Standard Programs in Panel Memory
- □ Password Protection for all Programming
- □ 24 Hour Clock
- □ Suitable for agent or water-based extinguishing
- □ Programmable pre-discharge timers*
- □ One Class B Abort circuit* (Defaults to additional supervisory zone in water based mode.)
- □ Four Abort modes*

* Available in Chemical mode only

** One zone programmable as abort in chemical mode

Product Overview

- □ The Potter Model PFC-4410RC is a flexible multi-hazard releasing control panel that is well suited for a number of applications. The PFC-4410RC is listed for use with pre-action and deluge sprinkler suppression systems and agent based fire suppression systems.

- □ The panel utilizes a microprocessor-based system that has 24 Standard Programs, which covers a majority of installations. The simple to follow Menu Structure programs the entire system in a matter of minutes. In addition to the Standard Programs, the panel allows custom programming to accommodate any installation.

- □ The panel is Ninth Edition UL listed, ULC listed, Factory Mutual, California State Fire Marshal (CSFM), New York Materials Equipment Acceptance (MEA) Approved, CE Marked, and RoHS Compliant.

- □ The PFC-4410RC is housed in a durable steel cabinet with removable door and key lock. The panel is available in either a red or white finish and an optional flush mount trim ring is available. The cabinet contains knockouts on the side, back and top of the cabinet to ease installation.
- □ In addition, the cabinet will house up to 18 amp-hour batteries that will provide in excess of 90 hours of standby power.

Suppression Panels - Conventional

SOLID CFS
Clean Fire Suppression – Configuration 1

IP66 Weatherproof

Features

□ Two detector groups for fire detection through dual group dependency

□ One detector group for triggering the extinguishing system manually

□ One control input for monitoring mechanical blocking of the extinguishing system

□ One control input for delay button

□ One control input for supervision devices

□ One control unit for audible notification devices

□ One control unit for optical notification devices

□ One control unit for valve control

□ One relay 24 V DC for signal transmission (delay extinguishing system/pre-alarm)

□ Three relays 230 V AC for signal transmission (fire, operating state, triggering of extinguishing system)

□ One internal contact group for actuation of an input module IUX 760 M-I for condition transmission (fire, fault) via Loop to a superordinated control panel

□ Collective and individual LEDs, partly red/yellow

Product Overview

□ Small control panel of the SOLID control panel family in a wall housing.

□ For operation of heat detectors, smoke detectors and multi-sensor detectors in standard design by different manufacturers and for monitored triggering of alarm devices, valves and release devices. Explicit LED notification and group specific control units allow a quick and intuitive operation of the panel.

Technical Specifications

Mains voltage	- 115 V / 230 V AC -10% +15%
Mains frequency	- 50 Hz - 60 Hz
Operating voltage	- 19.6 V - 28.7 V DC
Power supply unit	- 19.6 V - 28.7 V DC / 3 A
Quiescent current	- 80 mA DC
Battery capacity	- 2 x 12 V / 2.2 Ah internal
Nominal output voltage	- 24 V DC
Output current max.	- 2.4 A
External control voltage	- 19.6 V - 28.7 V DC
Collective relays	- 1 extinguishing system delay,
	- 1 fire, 1 operation,1 extinguishing
Contact load	- 1 x 1 A / 30 V DC, 3 x 2 A / 230 V AC
Max. switching capacity	- 1 x 30 VA / 3 x 460 VA
Ambient temperature	- -5 °C to +55 °C (+23 °F to 131 °F)
Storage temperature	- -20 ° C to +65 °C (-4 °F to +149 °F)
Relative humidity (IEC 721-3-3)	- max. 90 % (no condensation0
Dimensions (WxHxD)	- 340 x 300 x 140 mm (13.4 x 11.8 x 5.5 inch)
Enclosure	- Polycarbonate
IP rating (EN 60529)	- IP 66
Colour	- RAL 7035
Weight approx.	- 4.2 kg (9.3 lbs) without batteries
Mounting	- Wall-mounted installation

Package includes

Control panel with display and operating front panel, mainboard with power supply, conventional groups, control inputs, control groups and relay groups. Wired ready for operation. Operating manual and configuration instructions in German and English, log book, mounting material.

Spare key   Part Number 911745

Options

Input module IUX 760 M-I	Part Number 908531
Batteries 2 x 12 V DC 2.1 Ah	Part Number 927121
Batteries 2 x 12 V DC 2.2 Ah	Part Number 236023

Part no.: 929022

EN54-2, EN54-4, EN12094-1
1725-CPR-E0009

Suppression Panels - Addressable

Syncro XT+
Extinguishing Control Panel

Features

□ Approve to EN12094-1, EN54 and EN54-4

□ 16 detection zones

□ Up to 4 extinguishant areas

□ Dual extinguishant outputs for each area(configurable as Main/Reserve)

□ First and second stage sounder outputs for each area

□ First and second stage volt free changeover contacts for each area

□ Released volt free contact per area

□ Fault volt free contact per area

□ Programmable extinguishant delay

□ Programmable output duration

□ Countdown indicator shows time until release in seconds

□ Mode select and manual release controls per area

□ Monitored remote manual release input

□ Monitored remote hold input

□ Monitored remote mode select (door interlock) input

□ Monitored remote released pressure switch input

□ Monitored Abort input

□ Serial connections for Sigma Si status units and ancillary boards. (K588)

Product Overview

□ Syncro XT+ multi area addressable control panel enables extinguishing systems to use all the features and benefits of the more sophisticated detection techniques provided by addressable fire detectors. It also includes other benefits of analogue addressable systems such as control of loop connected sounders, beacons and input/output modules.

□ With up to 16 zones of addressable detection over one or two loops it ensures every detector can contribute to the extinguishant release.

□ The Syncro XT+ has up to four extinguishing areas and two releasing outputs per area which can be controlled via simple coincidence detection or via more complex cause and effects configured by the Loop Explorer configuration programme.

□ Each extinguishant area has a comprehensive set of inputs and outputs andis configurable via the Loop Explorer configuration programme. All extinguishant areas may have up to seven serially connected Sigma Si status indication and control units, or ancillary relay boards connected via asimple four-core cable.

□ With the addition of a Syncro network card, Syncro XT+ control panels can be networked to provide scalable extinguishing systems for all sizes of installation.

BS-EN12094-1
KM 96761

Approvals registered under Kentec Electronics Ltd

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VIKING

Suppression Panels - Addressable

Syncro XT+
Extinguishing Control Panel

Technical Specifications

Construction	-	1.2mm mild sheet steel
IP Rating	-	IP30
Finish	-	Epoxy powder coated
Colour - lid & box	-	BS 00 A 05 grey - fine texture
Colour - controls plate & labels	-	RAL 7047 light grey - satin
Weight	-	10kg
Mains supply	-	230V AC +10%/-15% (100 Watts maximum)
Mains supply fuse	-	1.6 Amp (F1.6A L250V)
Power supply rating (1 & 2 area units)	-	3 Amps total including battery charge 28V +/- 2V
Power supply rating (3 & 4 area units)	-	54 Amps including battery charge 28V +/- 2V
Maximum ripple current	-	200 millivolts
Battery charge voltage	-	27.6VDC nominal (temperature compensated)
Battery charge current	-	0.7A maximum
Battery fuse	-	20mm, 3.15A glass
Current draw in mains fail condition	-	54 milliamps per module
Max. current draw from batteries	-	3A (K31161M3, K32161M3, K31162M3, K32162M3) 5.25A (K31163M4, K32163M4, K31164M4, K32164M4)
Sigma XT+ module Aux 24V output	-	Fused at 500mA with electronic fuse– 1 per extinguishant area
Syncro AS Aux 24V output	-	Fused at 2.5A – not available to user
1st and 2nd stage sounder outputs	-	21 to 28V DC fused at 1A with electronic fuse
Fault relay contact rating	-	5 to 30VDC 1A Amp maximum
Fire relay contact rating	-	5 to 30VDC 1A Amp maximum
Local fire relay contact rating	-	5 to 30VDC 1A Amp maximum
First stage contact rating	-	5 to 30VDC 1A Amp maximum
Second stage contact rating	-	5 to 30VDC 1A Amp maximum
Extract contact rating	-	5 to 30VDC 1A Amp maximum
Zone quiescent current	-	2mA maximum
Terminal capacity	-	0.5mm² to 2.5mm² solid or stranded wire
Number of sounders per circuit	-	Dependent on type and current consumption – typically 20+
Monitored input end of line	-	6K8 5% ½ Watt resistor
Sounder circuit end of line	-	10K 5% ¼ Watt resistor
Extinguishant output end of line	-	1N4004 Diode
No. of detection circuits	-	1 or 2
No. of sounder circuits	-	Dependent on model, 21-28V DC
Extinguishant release output	-	21 – 28v DC. Fused at 1 Amp
Extinguishant release delay	-	Adjustable 0 to 60 seconds (+/-10%)
Extinguishant release duration	-	Adjustable 60 to 300 seconds
SIL, AL, FLT, RST inputs	-	Switched -ve, min resistance 0 ohms, max resistance 100 Ohms
Cabling	-	FP200 or equivalent (max. capacitance 1uFmax inductance 1mH)
Monitored inputs normal threshold	-	10K ohms to 2K ohms
Monitored inputs alarm threshold	-	2K ohms to 150 ohms +/-5%
Monitored inputs Short circuit threshold	-	140 ohms to 0 ohms +/-5%
Status unit / Ancillary board connection	-	Two wire RS485 connection (EIA-485 specification)
Status unit power output	-	21-28V DC. Fused at 500mA with electronic fuse

Panels

Product Code	Loop	Areas	Size (mm)
K31161M3	1	1	385 x 520 x 110
K32161M3	2	1	385 x 520 x 110
K31162M3	1	2	385 x 520 x 110
K32162M3	2	2	385 x 520 x 110
K31163M3	1	3	385 x 700 x 145
K32163M3	2	3	385 x 700 x 145
K31164M3	1	4	385 x 700 x 145
K32164M3	2	4	385 x 700 x 145

Approvals registered under Kentec Electronics Ltd

Suppression Panels - Conventional & Addressable

FMZ 5000 mod 4
NT5100 3A

Features
☐ Free selection of functional modules

☐ Can also be expanded for control of multi-zone extinguishing systems with redundant hardware

☐ Up to 4 detector loops with 126 detectors each,

☐ 16 conventional detector lines for 32 detectors

☐ Up to 16 control groups and 32 relays

☐ 14 collective signal LEDs, some in two colours

☐ 16 LED pairs, red/yellow, for individual signal indications

☐ Large LC display, fully graphical with menu-guided operation

☐ Can be loop networked up to 32 units in total

☐ The enclosure has space for emergency power batteries up to 12Ah

☐ All settings are carried out via a fully graphical interface on a PC with the MxSysCon configuration program

Technical Specifications

Mains voltage	- 115 V / 230 V AC -10% +15%
Mains frequency	- 50 Hz - 60 Hz
Operating voltage	- 19.6 V - 28.7 V DC
Power supply unit	- 19.6 V - 28.7 V DC / 3 A
Quiescent current	- 80 mA DC
Battery capacity	- 2 x 12 V / 2.2 Ah internal
Nominal output voltage	- 24 V DC
Output current max.	- 2.4 A
External control voltage	- 19.6 V - 28.7 V DC
Collective relays	- 1 extinguishing system delay,
	- 1 fire, 1 operation,1 extinguishing
Contact load	- 1 x 1 A / 30 V DC, 3 x 2 A / 230 V AC
Max. switching capacity	- 1 x 30 VA / 3 x 460 VA
Ambient temperature	- -5 °C to +55 °C (+23 °F to 131 °F)
Storage temperature	- -20 ° C to +65 °C (-4 °F to +149 °F)
Relative humidity (IEC 721-3-3)	- max. 90 % (no condensation0
Dimensions (WxHxD)	- 340 x 300 x 140 mm
	(13.4 x 11.8 x 5.5 inch)
Enclosure	- Polycarbonate
IP rating (EN 60529)	- IP 66
Colour	- RAL 7035
Weight approx.	- 4.2 kg (9.3 lbs) without batteries
Mounting	- Wall-mounted installation

Product Overview
☐ For use for sole fire detection control or combined fire detection and extinguishing control in small-scale projects.

☐ Also for controlling multi-zone extinguishing systems through redundant hardware.

☐ The wall enclosure is also suitable for flush-mounted wall installation or for desk mounting.

☐ For connecting analogue addressable and conventional detectors in standard or industrial design.

☐ Activation of remote transmission units for fire and fault signals, data transfer to management systems and control stations with open interfaces.

☐ Signal indication through large LC display and LEDs, menu-guided operation using configurable function keys.
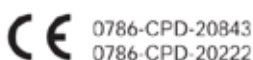
Package includes
Fire alarm panel with front display, operating plate, central card and power supply unit. Wired ready for the insertion of any modules. No additional wiring in the fire alarm panel required. Operating instructions, installation manual, drilling template.

Options
Modules, zone operating panel cards, batteries, report printer, installation material.

Part no.: 908551

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VIKING®

Field Devices - Conventional

Series 65

Optical Smoke Detector

The detector incorporates a pulsing LED located within the detector housing. The external moulding is identical to that of the ionisation detector, and has an indicator LED which is clear in quiescent state but produces a red light in alarm.

□ Responds well to slow-burning, smouldering fires
□ Well suited for bedrooms and escape routes
□ Unaffected by wind or atmospheric pressure
□ Flashing LED and magnet operated test switch option

55000-317: Series 65 Optical Smoke Detector

55000-316: Series 65 Optical Smoke Detector with flashing LED

55000-315: Series 65 Optical Smoke Detector with flashing LED and magnetic test

Heat Detector

The heat detector monitors temperature by using a dual thermistor network which provides a voltage output proportional to the external air temperature.

□ Can be used for applications where smoke detectors are unsuitable
□ Ideal environments that are dirty or smoky under normal conditions
□ Wide operating voltage

55000-122: A1R standard

55000-121: A1R standard with flashing LED

55000-120: A1R standard with flashing LED and magnetic test

55000-126: BR standard

55000-125: BR standard with flashing LED

55000-132: CR standard

55000-131: CR standard with flashing LED

55000-130: CR standard with flashing LED and magnetic test

55000-137: CS standard

55000-136: CS standard with flashing LED

55000-135: CS standard with flashing LED and magnetic test

Standard Base

The standard base has been designed to enable detectors to be fitted without the need of force. Particularly useful when fitting to suspended ceilings. All Series 65 bases have a one-way only ft. Detectors can be locked into place by a grub screw using a 1.5mm hexagonal screwdriver.

□ Detector locking mechanism
□ One-way fit
□ Easy to wire
□ Contains an earth connector
□ Contains no electrical parts
□ Terminal for remote indicator

45681-201: Series 65 Standard Base

Approvals registered under Apollo Fire Detectors Ltd

Field Devices - Conventional

Series 65A

Photoelectric Smoke Detector

Heat Detector

Standard Base

The photoelectric smoke detector incorporates a pulsing LED located within the housing of the detector. The detector has an indicator LED which is clear in a quiescent state but produces a red light when in alarm.

The heat detector monitors temperature by using a dual thermistor network providing a voltage output proportional to the external air temperature. There are nine heat detectors in the Series 65A range designed to suit a wide variety of operating conditions

The standard base has been designed to enable detectors to be fitted without the need of force. Particularly useful when fitting to suspended ceilings. All Series 65A bases have a 'one-way-only' fit.

□ Responds well to slow-burning, smouldering fires

□ Well suited for bedrooms and escape routes

□ Unaffected by wind or atmospheric pressure

□ Wide operating voltage

□ Flashing LED option

□ Flashing LED and magnet operated test switch option

□ Can be used for applications where smoke detectors are unsuitable

□ Ideal environments that are dirty or smoky under normal conditions

□ Wide operating voltage

□ Flashing LED option

□ Flashing LED and magnet operated test switch option

□ Two-Wire base

□ Detector locking mechanism

□ One-way fit

□ Easy to wire

□ Contains a ground wire terminal

□ Contains no electrical parts

55000-327: Series 65A Photoelectric Smoke Detector

55000-326: Series 65A Photoelectric Smoke Detector with flashing LED

55000-325: Series 65A Photoelectric Smoke Detector with flashing LED and magnetic test

55000-328: Series 65A Photoelectric Smoke Detector – high sensitivity

55000-140: 57°C / 135°F

55000-139: 57°C / 135°F with flashing LED

55000-138: 57°C / 135°F with flashing LED and magnetic test

55000-143: 77°C / 170°F

55000-142: 77°C / 170°F with flashing LED

55000-141: 77°C / 170°F with flashing LED and magnetic test

55000-146: 93°C / 200°F

55000-145: 93°C / 200°F with flashing LED

55000-144: 93°C / 200°F with flashing LED and magnetic test

45681-200USA: Series 65A Standard Base 4"

45681-220USA: Series 65A Standard Base 6

Approvals registered under Apollo Fire Detectors Ltd

Field Devices - Conventional

Pull Station

Features

□ UL and cUL Listed, FM Approved, CSFM Listed, MEA Approved, ADA Compliant

□ Single or Dual Action

□ Terminal connectors

□ 10 Amp Snap Action Switch

□ Gold plated SPST contacts

□ Optional auxiliary contacts

□ Mounts on standard single gangbox

□ Surface backboxes available

□ High-gloss red enamel finish

□ Glass breakrod

□ Made in the U.S.A.

Product Overview

□ The Potter Pull Station Series offers a complete line of die-cast pull stations for a variety of applications focusing mainly on fire alarm systems.

□ The pull stations are available in single or dual action models.

□ All of the pull stations have a 10-amp snap action switch and a dedicated terminal block for the ease of wire connections.

□ All of the metal is completely coated to inhibit corrosion and provide for a uniform and quality finish.

□ The standard models have a hex key reset, however a key reset is also available.

□ The models are available with shallow and deep surface mount back boxes and as a weatherproof version.

Engineering Specifications

The contractor shall furnish and install the Potter series of pull stations as indicated. The pull station shall be die cast construction with a "T" type pull handle that is ADA compliant.

Single action pull stations shall be a P32-1T. Dual action pull stations shall be the Potter P32-1T-LP. Any manual pull station installed in an outdoor or wet location shall be a RMS-1T-WP weather proof unit.

The contact shall be a single pole, single throw switch rated at 1 amp 30V DC/125V AC. The device shall have a terminal block for ease of wiring.

Once activated, the pull station shall be reset by opening the front cover. Opening of the cover in a normal state shall initiate an alarm.

Technical Specifications

Switch Rating	-	1 Amp @ 30 VDC
		10 Amps @ 125 VDC
Dimensions	-	$4\,{}^3/_4$" x $3\,{}^1/_4$" x ${}^7/_8$"
		120mm x 83mm x 22mm
Colour	-	Red with raised white letters, white pull bar with raised red letters

Field Devices - Conventional

Manual Call Point

Features

□ Approved to EN54-11 standard

□ Easy to reset element

□ Supplied with backbox for surface mounting

□ Unique 'plug and play' installation concept

□ Cable terminal block

□ Polycarbonate or ABS construction, depending on function

□ Complies with EMC Directive 2004/108/EC

□ Dimensions

• Indoor: 93mm x 89mm x 59.5mm

• Outdoor: 93mm x 97.5mm x 71mm

□ Weight

• Indoor: 180g

• Outdoor: 350g

Product Overview

□ The Conventional Manual Call Point has been designed to operate on conventional fire detection systems.

□ The Conventional Manual Call Point is available in 2 versions, indoor and outdoor in either red or yellow.

□ The Conventional Manual Call Point consists of a 470Ω resistor in series with a normally open switch contact.

□ Once activated, the Conventional Manual Call Point can be reset by inserting the test key into the bottom of the unit until the key clicks into position. Remove the test key and push the front cover up until it clicks home.

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Field Devices – Addressable

XP95

| Optical Smoke Detector | Optical/Heat Multisensor Detector | Heat Detector | Intelligent Mounting Base |

The optical smoke detector works on the light-scatter principle and is ideal for applications where slow-burning or smoldering fires are likely.

The optical/heat multisensor detector contains an optical smoke sensor and a thermistor (temperature sensor) whose outputs are combined to give the final analogue value.

Temperature is monitored by a single thermistor which provides a count output proportional to the external air temperature. The Standard heat detector is classified as an A2S device and willreport an alarm at 55°C. The high temperature detector, CS device class, will report an alarm at 90°C.

All detectors in the XP95 product line fit the Intelligent Mounting Base which is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all bases.

□ Responds well to slow-
  burning, smouldering fires
□ Well suited for bedrooms and
  escape routes
□ Unaffected by atmospheric
  pressure

□ Sensitive to a wide range of
  fires
□ Well suited for environments
  such as hotel bedrooms
□ Unaffected by wind or
  atmospheric pressure

□ Ideal for environments that are
  dirty or smoky under normal
  conditions
□ Well-suited to warehouses,
□ loading docks and parking
  garages
□ Unaffected by wind or
  atmospheric pressure

□ XPERT 7 Card addressing
□ One-way fit
□ Locking feature to prevent
  unauthorised removal

55000-600: XP95 Optical Smoke Detector
55000-620: XP95 Optical Smoke Detector (VdS Approved)
55000-660: XP95 Optical Smoke Detector (Black Finish)

55000-885: XP95 Optical/Heat Multisensor Detector

55000-400: XP95 Heat Detector A2S
55000-420: XP95 Heat Detector A2S (VdS Approved)
55000-401: XP95 Heat Detector CS

45681-210: Intelligent Mounting Base
45681-361: Intelligent Mounting Base (Black Finish)

Approvals registered under Apollo Fire Detectors Ltd

Field Devices – Addressable

XP95A
Detectors

Photoelectric Smoke Detector	Multisensor Detector	Heat Detector	Mounting Base

The photoelectric smoke detector works on the light-scatter principle and is ideal for applications where slow-burning or smoldering fires are likely.

The multisensor detector contains a photoelectric smoke sensor and a thermistor (temperature sensor) whose outputs are combined to give the final analogue value.

The heat detector monitors temperature by using a single thermistor which provides a voltage output proportional to the external air temperature. It is classified as an ordinary detector by UL

All detectors in the XP95A product line fit the XP95A Mounting Base which is a low insertion force base with stainless steel contacts for the detector terminals. XPERT 7 Cards are supplied with all bases.

□ Responds well to slow-burning, smouldering fires
□ Well suited for bedrooms and escape routes
□ Unaffected by atmospheric pressure

□ Sensitive to a wide range of fires
□ Well suited for environments such as hotel bedrooms, warehouses and loading docks
□ Unaffected by wind or atmospheric pressure

□ Ideal for environments that are dirty or smoky under normal conditions
□ Well-suited to warehouses,
□ loading docks and parking garages
□ Unaffected by wind or atmospheric pressure

□ XPERT 7 Card addressing
□ One-way fit
□ Locking feature to prevent unauthorised removal

55000-650: XP95A Photoelectric Smoke Detector

55000-886: XP95A Multisensor

55000-450: XP95A Heat Detector

45681-210UL: XP95A Mounting Base 4"

45681-225APO: XP95A Mounting Base 6"

Field Devices – Addressable

XP95A
Dual Action Addressable Manual Pull Station

Features

□ UL Listed,

□ Visible internal LED indicator

□ East reset

□ Flush Mounted

□ Optional surface backbox available

□ Key lock

□ Lightweight polycarbonate housing

Technical Specifications

Call Point Type	- Pull Station
Alarm indicator	- Red light emitting diode (LED)
Fault indicator	- Amber / Yellow LEDs
Supply wiring	- 2-wire supply, polarity sensitive
Loop connections	- Terminal block L1 -ve/L2 +ve
Digital communication	- XP95, (Discovery and
	Core Protocol compatible)
Supply Voltage	- 17 – 28V DC
UL Listed to operate	- 20-28V DC
Operating Temperature	- 0ºC – 38ºC
	32ºF – 100ºF
Humidity	- 0% - 95% RH
(no condensation or icing)	
Dimensions (HxWxD)	- $5\,^1/_2$" x $4\,^1/_8$" x $1\,^1/_8$"
	140mm x 105mm x 29mm
Weight	- 7oz (199g)

Product Overview

□ The XP95A Dual Action Addressable Manual Pull Station features a translucent plastic panel at the centre enabling visibility of an internal LED that indicates alarm condition and polling status.

□ The LED is still visible even when the pull station is closed.

□ The address of each pull station is set at the commissioning stage by means of a seven-segment DIP-switch.

□ Pushing in, then pulling down on the handle causes it to latch in the down/activated position. Once activated the yellow activated flag appears at the bottom of the pull station face.

□ The pull station is reset by inserting the reset key into the top of the unit, this opens the door which in turn resets the handle; closing the door automatically resets the switch.

Approvals registered under Apollo Fire Detectors Ltd

Field Devices – Addressable

Intelligent
Manual Call Point

Features

- Resettable operating element
- Easy access, front reset mechanism
- E-Z fit connector system for installation
- Ergonomic reset key
- EN 54-11 & EN 54-17 Certified (Red version only)
- 170° viewable LED
- Continuity link for cable insulation testing
- Suitable for semi flush or surface mounting

Technical Specifications

Product Type	- Manual Call Point
Digital Communications Protocol	- CoreProtocol, Discovery & XP95 compatible
	5-13V Peak to Peak
Suppy Voltage	- 17-35V DC
Current Consumption (max) at 24V DC	
Power Up Surge (1s typical)	- 1mA
Quiescent	- 100µA
Alarm current (LED On)	- 4mA
Operating temperature	- -40°C to 70°C
Humidity (no condensation or icing)	- 0% to 95%RH
Vibration, impact and shock (Red version only)	- EN 54-11 & EN 54-17
IP Rating	- IP44
Approvals & standards (Red version only)	- EN 54-11, EN 54-17, CPR & LPCB
Dimensions (HxWxD)	- 90mm x 90mm x 63mm
	$3^1/_2$" x $3^1/_2$" x $2^1/_2$"
Weight	- 180g, 6.3oz

Part Numbers

SA5900-908APO (Red)
SA5900-903APO (White)
SA5900-904APO (Yellow)
SA5900-905APO (Blue)
SA5900-906APO (Green)
SA5900-907APO (Orange)

Product Overview

- The Intelligent Manual Call Point has been designed to operate on a loop of intelligent fire detection devices.

- An alarm is initiated by pressing the resettable element. The manual call point signals to the Control and Indicating Equipment using an interrupt feature within the Apollo Digital Protocol.

- An alarm status is indicated through the rotation of the resettable element, displaying yellow and black indication bars and a solid red LED.

- A solid red alarm LED is provided on the manual call point. This LED is controlled independently of the call point, by the control panel. The LED will flash yellow if there is a fault and flash green when the device is polled. Discovery and CoreProtocol configurable.

- Once activated, the Intelligent Manual Call Point can be reset by inserting the reset key into the front facing LED, turning clockwise until a positive click and reset occurs.

- The Intelligent Manual Call Point incorporates a short circuit isolator which will ensure its operation in the event of a short circuit fault on the loop. Isolator operation is indicated by a solid yellow LED. For further details of the isolator refer to data sheet PP2090, available on request.

- This manual call point helps reduce installation time as all the initial installation cabling is wired to a removable terminal block which fits neatly in the back of the manual call point.

EN 54-11
EN 54-17

Common Field Devices

Notification Devices
Dome Alarm Bell

Features

☐ UL approved.

☐ High sound level output.

☐ Low power consumption.

☐ 6", 8" and 10" dome sizes.

☐ Quick and easy installation.

☐ Interchangeable base.

☐ Zero standby current.

☐ Low current consumption for efficient operation over long wire runs.

☐ Loud, distinctive and clear ringing sound.

☐ Corrosion resistant finish.

☐ IP 65 rated weatherproof

Product Overview

☐ DEMCO UL Certified Dome Alarm Bell series is designed to meet the needs of fire fighting and detection system with central control panel.

☐ The UL 464 listed DEMCO Alarm Bells embraced simplicity in design. They incorporate fewer working parts, easy to be installed and operate at high level of efficiency thus enable them to perform under most adverse conditions.

Decibel Ratings / Weight

Model	Size	dB @ 3m (10ft)	Gross Weight
D-122-6	6"	95 dB	700g / 1.5lb
D-122-8	8"	83 dB	1,150g / 2.5lb
D-122-10	10"	85 dB	1,600g / 3.5lb

Models

Model	Size	Type	Voltage
D-122-6	6"	Motorised	24V DC
D-122-8	8"	Motorised	24V DC
D-122-10	10"	Motorised	24V DC
D-142-6	6"	Solenoid	6V DC
D-142-12	6"	Solenoid	12V DC
D-142	6"	Solenoid	24V DC
D-142-120	6"	Solenoid	120V AC
D-142-220	6"	Solenoid	220V AC
D-142WP-6	6"	Solenoid	6V DC
D-142WP-12	6"	Solenoid	12V DC
D-142WP-	6"	Solenoid	24V DC
D-142WP-120	6"	Solenoid	120V AC
D-142WP-220	6"	Solenoid	220V AC

Weatherproof 4" Square Outlet Box

Approvals registered under Demco Industries Sdn Bhd

VIKING®

Common Field Devices

Notification Devices
Indoor Selectable Output Horns, Strobes and Horn Strobes

Features

□ Updated Modern Aesthetics

□ Small profile devices for Horns and Horn Strobes

□ Plug-in design with minimal intrusion into the back box

□ Tamper-resistant construction

□ Automatic selection of 12- or 24-volt operation at 15 and 30 candela

□ Field-selectable candela settings on wall units: 15, 30, 75, 95, 110, 135, and 185

□ Horn rated at 88+ dBA at 16 volts

□ Rotary switch for horn tone and two volume selections

□ Mounting plate for all standard and all compact wall units

□ Mounting plate shorting spring checks wiring continuity before device installation

□ Electrically Compatible with legacy SpectrAlert and SpectAlert Advance devices

□ Compatible with MDL3 sync module

□ Listed for wall mounting only

Product Overview

□ The System Sensor L-Series offers the most versatile and easy-to-use line of horns, strobes, and horn strobes in the industry with lower current draws and modern aesthetics. With white and red plastic housings, standard and compact devices, and plain, FIRE, and FUEGO-printed devices, System Sensor L-Series can meet virtually any application requirement.

□ The L-Series line of wall-mount horns, strobes, and horn strobes include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

□ To further simplify installation and protect devices from construction damage, the L-Series utilizes a universal mounting plate for all models with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

□ Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, automatic selection of 12- or 24-volt operation, and a rotary switch for horn tones with two volume selections.

Notes:
All -P models have a plain housing (no "FIRE" marking on cover)
All -SP models have "FUEGO" marking on cover
All -ALERT models have "ALERT" marking on cover

Model   Description

Wall Horn Strobes

Model	Description
P2RL	2-Wire, Horn Strobe, Red
P2WL	2-Wire, Horn Strobe, White
P2GRL	2-Wire, Compact Horn Strobe, Red
P2GWL	2-Wire, Compact Horn Strobe, White
P2RL-P	2-Wire, Horn Strobe, Red, Plain
P2WL-P	2-Wire, Horn Strobe, White, Plain
P2RL-SP	2-Wire, Horn Strobe, Red, FUEGO
P2WL-SP	2-Wire, Horn Strobe, White, FUEGO

Wall Strobes

Model	Description
SRL	Strobe, Red
SWL	Strobe, White
SGRL	Compact Strobe, Red
SGWL	Compact Strobe, White
SRL-P	Strobe, Red, Plain
SWL-P	Strobe, White, Plain
SRL-SP	Strobe, Red, FUEGO
SWL-CLR-ALERT	Strobe, White, ALERT

Horns

Model	Description
HRL	Horn, Red
HWL	Horn, White
HGRL	Compact Horn, Red
HGWL	Compact Horn, White

Accessories

Model	Description
TR-2	Universal Wall Trim Ring Red
TR-2W	Universal Wall Trim Ring White
SBBRL	Wall Surface Mount Back Box, Red
SBBWL	Wall Surface Mount Back Box, White
SBBGRL	Compact Wall Surface Mount Back Box, Red
SBBGWL	Compact Wall Surface Mount Back Box, White

Approvals registered under System Sensor

Common Field Devices

Signages
LED Warning Sign

Features

☐ LED Technology

☐ Available with or without electronic flashing circuit

☐ IP30 Rating

Product Ordering

Model	Lamp Used	Mode
BL 2430-LED-T5	2 x 1.8W T5 White LED	Non-Flashing
EFL-2412-LED-T5	2 x 1.8W T5 White LED	Electronic Flashing

Technical Specifications

Input Voltage	- 24Vdc ±20%
Input Current	- < 0.08A
Lamp Used	- 2 x SMT White LED or others
Mode	- Electronic Flashing
Operation Temp.	- ta 40 °C
Power Consumption	- < 2W
Construction	- Electrode galvanised sheet steel with epoxy powder coating 20mm Ø K/O hole
DimensionD (LxWxH)	- 370mm x 80mm x 165mm
Weight	- 1.80kg (Net) / 2.00kg(Gross)
Packing	- One unit per carton
Carton	- Double wall corrugated
Carton Dimension (LxWxH)	- 390mm x 100mm x 180mm

Common Field Devices

Sigma XT Ancillaries
Extinguishant Abort Button, Hold Orr Unit & Keyswitch Units

K13470M10 Abort Unit
Features
- Large mushroom head pushbutton
- Twist to release latching action
- Compatible with all Sigma XT+ models
- Robust steel enclosure
- Surface or single gang flush mounting

Product Ordering
- The K13470M10 Abort unit provides a highly visible point to enable an immediate abort of a fire protection extinguishant release. The large red, domed pushbutton latches when pressed and requires a twist action to release.
- The robust enclosure allows for either surface mounting or mounting to a single gang flush box.

K91000M10 Hold Off Unit
Features
- Shrouded pushbutton to prevent inadvertent operation
- Activation resistor included
- Compatible with all Sigma XT and Sigma XT+ models
- Robust steel enclosure
- Surface or single gang flush mounting

Product Ordering
- The K91000M10 Hold Off Unit provides a robust and convenient point to apply a temporary hold to release of fire protection extinguishant release. The robust pushbutton is shrouded to prevent accidental operation and is coloured to comply with the requirements of BS7273-1.
- Housed in an attractive surface mounting single gang enclosure, the unit is suitable for flush mounting to a standard single gang back box

K13520M10 Extract Switch
Features
- Common "901" keyswitch
- Key trapped in operated position
- Compatible with all Sigma XT and Sigma XT+ models
- Robust steel enclosure
- Surface or single gang flush mountin

Product Ordering
- The K13520M10 Extract unit provides a convenient and secure means to operate extract fan plant associated with the fire protection extinguishing system.
- The "901" key is common to many fire detection and protection control panels and is retained in the operated position.
- The robust enclosure allows for either surface mounting or mounting to a single gang flush box.

K13480M10 Main/ Reserve Switch
Features
- Common "901" keyswitch
- Key trapped in operated position
- Compatible with all Sigma XT and Sigma XT+ models
- Robust steel enclosure
- Surface or single gang flush mounting

Product Ordering
- The K13480M10 Main/ Reserve switch provides a convenient and secure means to operate a switch to reserve extinguishing system agent where such provision is made as a back up to the main agent.
- The "901" key is common to many fre detection and protection control panels and is removable in either position.
- The robust enclosure allows for either surface mounting or mounting to a single gang flush box

Model: K13470M10 Abort Unit | Model: K91000M10 Hold Off Unit | Model: K13520M10 Extract Switch | Model: K13480M10 Main/ Reserve Switch
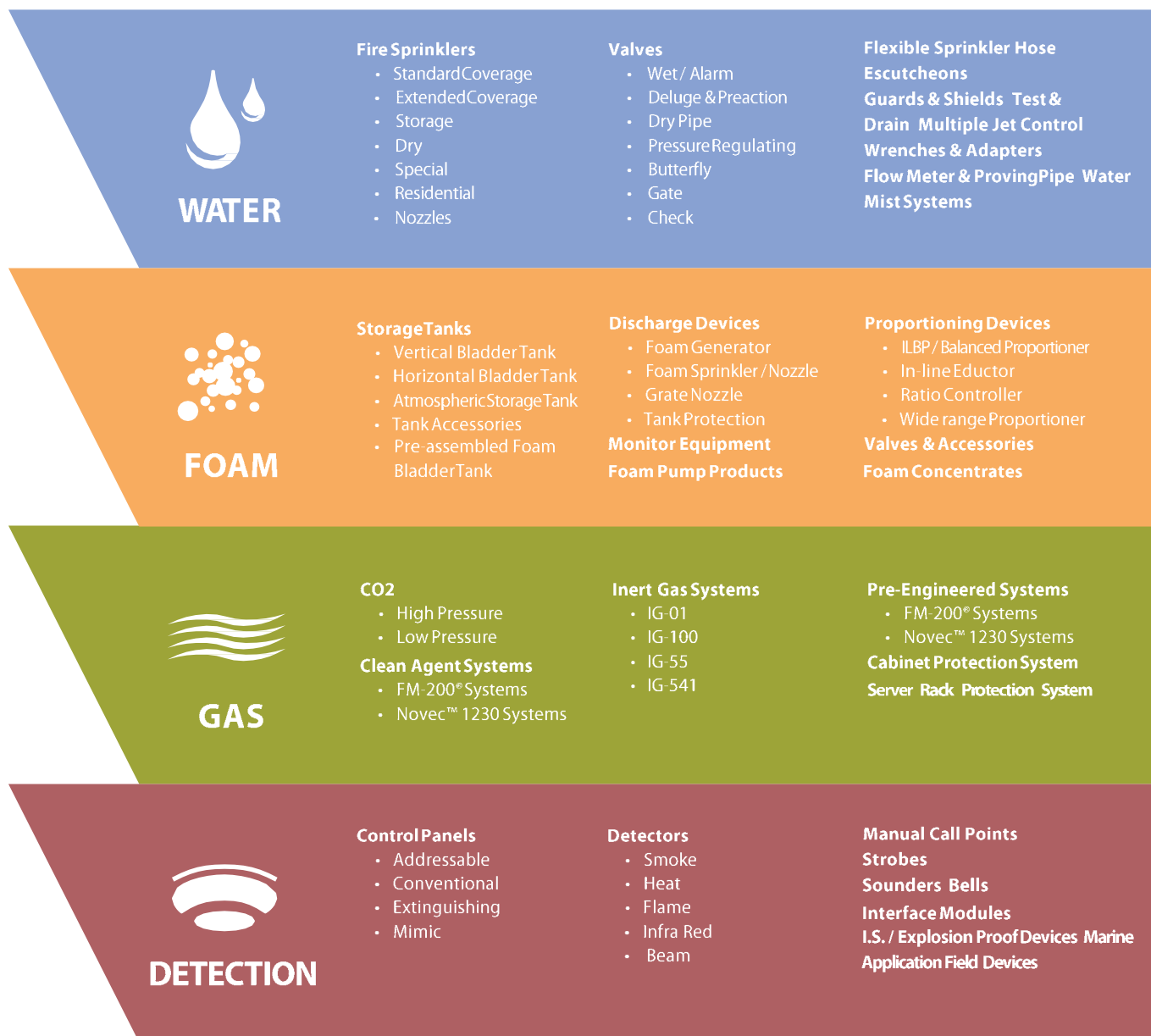
Notes

PRODUCTS & SOLUTIONS

To address a wide spectrum of fire risk and challenges, Viking offers a broad and comprehensive range of products, systems and solutions classified into these four product groups:

- **Water** - Water based fire suppression technologies
- **Foam** - Foam based fire suppression technologies
- **Gas** – Gaseous and clean agent based fire suppression technologies
- **Fire Alarm & Detection** - Fire detection and warning technologies

WATER

Fire Sprinklers
- Standard Coverage
- Extended Coverage
- Storage
- Dry
- Special
- Residential
- Nozzles

Valves
- Wet / Alarm
- Deluge & Preaction
- Dry Pipe
- Pressure Regulating
- Butterfly
- Gate
- Check

Flexible Sprinkler Hose
Escutcheons
Guards & Shields Test &
Drain Multiple Jet Control
Wrenches & Adapters
Flow Meter & Proving Pipe Water
Mist Systems

FOAM

Storage Tanks
- Vertical Bladder Tank
- Horizontal Bladder Tank
- Atmospheric Storage Tank
- Tank Accessories
- Pre-assembled Foam Bladder Tank

Discharge Devices
- Foam Generator
- Foam Sprinkler / Nozzle
- Grate Nozzle
- Tank Protection

Monitor Equipment
Foam Pump Products

Proportioning Devices
- ILBP / Balanced Proportioner
- In-line Eductor
- Ratio Controller
- Wide range Proportioner

Valves & Accessories
Foam Concentrates

GAS

CO2
- High Pressure
- Low Pressure

Clean Agent Systems
- FM-200® Systems
- Novec™ 1230 Systems

Inert Gas Systems
- IG-01
- IG-100
- IG-55
- IG-541

Pre-Engineered Systems
- FM-200® Systems
- Novec™ 1230 Systems

Cabinet Protection System
Server Rack Protection System

DETECTION

Control Panels
- Addressable
- Conventional
- Extinguishing
- Mimic

Detectors
- Smoke
- Heat
- Flame
- Infra Red
- Beam

Manual Call Points
Strobes
Sounders Bells
Interface Modules
I.S. / Explosion Proof Devices Marine
Application Field Devices

VIKING ASIA NETWORK

Viking relies on a vast network of distributors and resellers across Asia to effectively serve the market. Contact the Viking Office nearest to you and we shall connect you with a distributor nearest your location.

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Trusted above all.