



In 2020 LGM made a choice; to review all aspects of our business and reduce our carbon footprint.

But why stop there? Like so many, we have become increasingly concerned about the levels of pollution and waste within our precious oceans and seas. So we decided to take some positive action.

Big Blue Ocean Clean Up is a non-profit organisation committed to ending ocean pollution. To date, they have removed 2 million kg of rubbish from our oceans.

Further to their extensive cleaning projects they are also investing in providing free educational resources, researching ocean pollution for policy change and supporting the development of innovative technologies to help reduce ocean pollution.

LGM is delighted therefore to announce our corporate partnership with Big Blue Ocean Clean Up. LGM's support will enable Big Blue Ocean Clean Up to continue its devoted work and help remove even more rubbish from our seas.

To understand more about Big Blue Ocean Clean Up visit www.bigblueoceancleanup.org/



# **About us**

Formed in 1988, we are proud to be an independent service orientated company. *LGM Products* has an enduring commitment to customer service excellence and product quality combined with high standards of **safety** and business **ethics**.

# **Marine Range**

LGM has been providing **marine approved** fire detection and audio visual signalling solutions for the marine industry for over **30 years**. Our range includes the **market leading** Esento Marine conventional control panel and FireFinder Marine addressable systems. LGM is also proud to offer the most extensive range of **MED approved** sounders, beacons and combination devices for all your signalling needs.

# What we do

LGM Products is a truly **international supplier** with customers in over 40 different countries across Europe, the Middle East and the Asia–Pacific region. We supply fire detection devices, audio/visual warning alarms and associated equipment to just about every conceivable industry **around the world**.





Marine and offshore



Audio visual signalling



Fire detection



Hazardous area

Addressable Fire Panels



# **FireFinder Marine**

## Multi-Loop Addressable Fire Control Panel

FireFinder Marine is an Intelligent Analogue Addressable Fire Alarm Control Panel that is available in 1 to 4 loop panel options.

The FireFinder Marine is suitable for small to medium sized vessels

and is compatible with Apollo Discovery Marine Detectors.

Powerful and flexible programming is achieved via AMPAC's configuration tool, ConfigManager Plus, which includes many pre-engineered

programming functions. Simple system programming is easily achieved via the front panel.

FireFinder Plus is configurable as a peer-to-peer network up to 99 panels/nodes with a maximum of 250 Loops.



- Fully expandable
- 1-4 loops
- Large graphic display
- 4 programmable monitored inputs
- 4 programmable monitored sounder outputs
- 5 programmable relays
- 2 auxiliary power outputs
- Networkable
- High level graphics interface
- Modbus interface
- Programmable muster alarm
- Fully EN54-2 and EN54-4 approved

















FireFinder Marine

# **FireFinder Marine**

## Network Repeater

Connected to the FireFinder Marine high integrity network, the Repeater is designed to remotely display the fire alarm control system status allowing the interrogation of all system alarms, faults and disablements.

Abilities include: "Evacuate", "Reset", "Disable / Enable of Zones and/or Devices", "Override programmed De-lays" and "Silence and re-sound of alarms" during an emergency condition.



- LCD display with event log
- Optional flush mount enclosure
- Multiple repeaters on single system possible

# **FireFinder Marine**

### Marine Network Interface Board

The Network Interface Board allows up to 99 FireFinder Marine panels to be networked together.

The network is capable of withstanding an open or short circuit fault without the loss of communications to any panels.

The network operates as a peer-to-peer network, with all device state changes shared over the network.



- Enables multiple panels and repeaters to be networked
- Fault tolerant network connection
- Easy installation with
   2-wire connections









Addressable Fire Panels

FireFinder Marine

# **FireFinder Marine**

8-Zone Conventional Board

The 8 Zone Conventional Board has been designed to interface with AMPAC's range of fire alarm control panels. The board supports 8 conventional zones and connects to the fire panel via the internal dedicated RS485 communications port.



- Each zone accommodates up to 40 Apollo Marine Orbis conventional detectors
- Can be programmed to function in one of the following modes:
  - Normal (latching)
  - Non-latching/Self Reset

## **FireFinder Marine**

Universal High Level Interface Board

The High Level Interface (HLI) Expander Board provides the ability for the FireFinder Marine fire panel to interface to a range of systems using common communication protocols.

Individual events such as fire or pre-alarms, can be configured to be passed to the various external systems for reporting and indication.



- Voyage Data Recorder (VDR)

   interfacing converts system
   status, alarms and events to NMEA

   0183 Standard compliant strings
- SmartView Graphical Event management system interface
- Modbus output











### **Discovery Marine Optical Smoke Detector**

- IP44
- Unaffected by wind or atmospheric pressure
- Suitable for bedrooms, escape routes
- Approved by Lloyd's Register, DNV, ABS, MCA, BV, MED



### **Discovery Marine Multisensor Detector**

- IP44
- Optical smoke and thermistor temperature sensors
- High immunity to false alarms
- Approved by Lloyd's Register, DNV, ABS, MCA, BV, MED



## **Discovery Marine Heat Detector**

- IP54
- Rate-of-rise/static
- Ideal in dirty/smoky environments
- Approved by Lloyd's Register, DNV, ABS, MCA, BV, MED



### **Discovery Marine Addressable Mounting Base**

- XPERT Addressing
- One way fit
- Locking feature

- Stainless steel contacts
- Approved by DNV, ABS and MED











Addressable Fire Detection



### **XP95 IS Optical Smoke Detector**

- IP23D
- 'Light scatter' optical detection
- Intrinsically safe (suitable for zone 0)
- Approved by Lloyd's Register, DNV, ABS, MCA, BV, MED



#### **XP95 IS Heat Detector**

- IP23D
- Rate of rise/static
- Intrinsically safe (suitable for zone 0)
- Approved by Lloyd's Register, DNV, ABS, MCA, BV, MED



## **XP95 IS Addressable Mounting Base**

- XPERT Addressing
- One way fit
- Locking feature Stainless steel contacts
- Approved by DNV, ABS and MED













# **Apollo**

## Discovery Marine Addressable Call Point

The Discovery Marine Manual Call Point has been approved for use in indoor marine applications such as cruise liners. When operated, the manual call point interrupts the polling cycle for a fast response.



- MED approval
- IP24D
- 17-28Vdc
- -20°c to +60°c
- Two-wire supply
- Polycarbonate/ABS
- Flush or surface mounted

# **Apollo**

# Discovery Marine Waterproof Manual Call Point

The Discovery Marine Waterproof Manual Call Point has been designed for use outdoors and in places where moisture can occur. It is compliant with EN54-11 and can be used with the Discovery Marine range.



- MED approval
- IP67
- 17-28Vdc
- -20°c to +60°c
- Two-wire supply
- Polycarbonate/ABS
- Flush or surface mounted









Conventional Fire Panels



These panels have been designed to minimise labour costs by providing ample space for tasks such as wiring and changing batteries.

Simple colour coded buttons give

the user confidence in correctly managing their fire alarm system and the one person walk tests will help reduce the cost of maintaining the system. A host of configuration and programming options are provided, including; programmable inputs & outputs, false alarm management, muster alarm and programmable output delays.

# **Esento Marine**

## 2-4 Zone

- 2 or 4 zones
- Inputs for sounder ringing & pulsing
- Fire & fault relays
- 2 monitored sounder circuits
- Earth fault monitoring
- One person walk test
- Integral 1.25 Amp switch mode PSU
- Space for up to 3.2Ah batteries
- False alarm management modes
- Muster alarm
- 12 month warranty



















# **Esento Marine**

# 8-12 Zone

- 8 12 zones
- Integral 2.5 Amp switch mode PSU
- Space for up to 7Ah batteries
- Programmable inputs
- Programmable relays & outputs
- Up to 6 monitored sounders
- Modular expansion zone cards available
- 3 false alarm management modes
- Muster alarm
- Zonal programming
- Programmable output delays
- Supports up to 8 repeater panels
- 12 month warranty

















Conventional Fire Panels



# **Esento Marine**

## 12-Way Repeater Panel

The Esento Marine repeater panel has the same intuitive controls and indications as the main control panel but mounted in a smaller cabinet. The repeaters

are fully functional with 'Silence', 'Resound' and 'Reset' controls, as well as 'Disable' and 'Test Mode' functions. It is also possible to disable the controls for each or

all repeater panels to make them passive (indication only). Up to 8 repeater panels can be supported on a Esento 8-12 zone system.



- 12 zonal fire & fault indications
- Class change & pulsing inputs
- Programmable outputs
- Fully functional or passive
- Test mode & disablement functions
- Integral 1A switch mode PSU









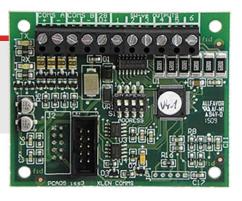


# **Esento Marine**

## Network Comms Card

This comms card simply plugs in on top of the main circuit board of the control panel to allow up to 8 control panels to be networked. In addition to the control panels up to 8 repeater panels or remote display units can also be added to the network.

- Network up to 8 control panels
- Up to 8 additional repeater panels on the network
- Card includes 6 programmable switch –ve outputs

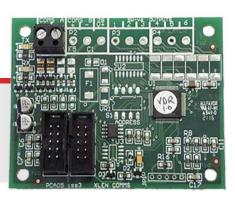


# **Esento Marine**

## VDR Card

Esento Marine VDR allows the connection between the conventional fire detection system and the ships voyage data recorder. This simple plug-in card is easy to connect and provides data in accordance with IEC 61162-1 Ed.3

- Data Output: RS485, ASCII characters, BAUD rate: 4800, data bits 8 (D7=0),
- parity 0, stop bits 1
- Designed to: IEC 61162-1 Ed.3











Conventional Fire Detection



### **Orbis Marine Optical Smoke**

- Wide voltage range (8.5 33Vdc)
- Optical smoke detector
- IP23D

- 4 second sampling frequency
- Approved to MED, DNV, KRS, LR, CCS, BV and ABS



#### **Orbis Marine Multisensor Detector**

- Wide voltage range (8.5 33Vdc)
- Thermistor and optical smoke detector
- IP23D

- 4 second sampling frequency
- Approved to MED, DNV, KRS, LR, CCS, BV and ABS



#### **Orbis Marine Heat Detector**

- Wide voltage range (8.5 33Vdc)
- Heat detector (thermistor)
- IP23D
- 4 second sampling frequency
- Approved to MED, DNV, KRS, LR, CCS, BV and ABS
- Wide temperature range available



#### Series 65M U.V. Flame Detector

- Compact UV Flame Detector
- Base Mounted
- Sensitive to UV spectrum for early detection
- Approved by CCS, ABS and MED













#### **Time Saver Marine Base**

- Grouped terminals to make wiring easy
- Detector locking mechanism
- Decrease installation time
- Approved to MED, DNV, KRS, LR, CCS, BV and ABS



## **Time Saver Marine Relay Base**

- Grouped terminals to make wiring easy
- Detector locking mechanism
- Decrease installation time
- Relay output
- Approved to MED, DNV, KRS, LR, CCS, BV and ABS



### **Series 65 Marine Base**

- For use with Series 65 Marine UV flame detector
- Easy installation
- Approved by CCS, ABS and MED











Conventional Fire Detection



### **Orbis IS Optical Smoke**

- 14 28Vdc
- Optical smoke detector
- IP23D

- 4 second sampling frequency
- Approved to ATEX, IECEX, MED, DNV, KRS, LR, CCS, BV and ABS



#### **Orbis IS Multisensor Detector**

- 14 28Vdc
- Thermistor and optical smoke detector
- IP23D

- 4 second sampling rate
- Approved to ATEX, IECEX, MED, DNV, KRS, LR, CCS, BV and ABS



### **Orbis IS Heat Detector**

- 14 28Vdc
- Heat detector (thermistor)
- IP23D

- 4 second sampling rate
- Approved to ATEX, IECEX, MED, DNV, KRS, LR, CCS, BV and ABS



#### **Orbis IS Time Saver Base**

- Grouped terminals to make wiring easy
- Detector locking mechanism
- Decrease installation time
- Approved to ATEX, IECEX, MED, DNV, KRS, LR, CCS, BV and ABS













### **SOC-E3NM Marine Approved Photoelectric Smoke Detector**

- Wide voltage range (9.5 30Vdc)
- Removable chamber
- Remote indicator output
- MED and DNV approved



## **DCD-AE3M Combined Heat Detector** (fixed temp & rate or rise 60°C)

- Wide voltage range (9.5 30Vdc)
- Rate of rise heat detector
- 60°C heat sensing element
- Remote indicator output
- MED and DNV approved



## **DCD-CE3M Combined Heat Detector** (fixed temp & rate or rise 90°C)

- Wide voltage range (9.5 30Vdc)
- Rate of rise heat detector
- 90°C heat sensing element
- Remote indicator output
- MED and DNV approved



#### **DRD-EM Marine IR Flame Detector**

- Up to 25m range
- Single IR technology
- Fits standard MED base
- Remote indicator output
- MED and DNV approved



## YBN-R/6-M Marine Approved Standard Base

- Accepts 2.5mm cables
- Electronics free
- Small 8mm profile

- MED and DNV approved
- Integral remote indicator output











Conventional Fire Detection



## **SOC-E-IS Intrinsically Safe Smoke Detector**

- ATEX Classification to: Ex ia IIC
   T5 Ga (-20°C ≤ Ta ≤ +55°C)
- Removable, high performance chamber
- Remote indicator output
- MED and DNV approved



## **DCD-1E-IS Intrinsically Safe Heat Detector**

- Rate of rise heat detector
- 60°c fixed temperature element
- Suitable for category 1
- ATEX Classification to II 1G EEx ia IIC T5 Tamb=55C
- MED and DNV approved



## YBN-R/4(IS) Intrinsically Safe Detector Base

- Accepts 1 to 2.5mm cables
- Electronics free
- Small 8mm profile

- MED and DNV approved
- Dedicated cable screen terminal













## **Apollo Deckhead Mounting Box**

- Compatible with all Apollo marine bases
- Protects against water ingress and
- provides improved performance
- · Ideal for bulkhead fixing





## **MBB2 Deckhead Mounting Box**

- Compatible with both Apollo and Hochiki bases
- 4 cable entry holes suitable for cable glands (2 glands supplied)
- Ivory or white colours available
- Provides moisture and dust resistant fixing
- Ideal for bulkhead fixing
- Approved by LR and DNV GL











Conventional Fire Detection



# **KAC**

## MCP1A Indoor Call Point

Installation time and ultimately cost, are of paramount importance to any fire or security installer. The MCP range directly reflects this need by providing a unique 'plug and play' concept designed specifically to reduce installation time.



- IP24D
- Up to 30Vdc
- -10°c to +55°c
- Two-wire supply
- ABS
- Flush or surface mounted

# **KAC**

## WCP1A Weather Resistant Call Point

The outdoor WCP is an IP67 sealed manual call point product. The enhanced environmental protection allows the unit to be installed in many external environments where water and dirt are likely to be present, making it a true waterproof and outdoor product.



- IP67
- Up to 30Vdc
- -25°c to +70°c
- Two-wire supply
- ABS
- Flush or surface mounted











#### **VTB**

- 99dB(A)
- 1Hz LED
- 32 tones, 2 stage alarm
- IP21C(shallow)/IP33C(deep)
- 24Vdc
- Lens: amber/red
- MED approved



#### **VTG**

- 102dB(A)
- 32 tone, 2 stage alarm
- IP21C(shallow) or IP33C(deep)
- 24Vdc
- Red or white
- MED approved



#### SONFL1X

- 100dB(A)
- 1Hz Xenon strobe
- 10 tones, 2 stage alarm
- IP66
- 12Vdc/24Vdc/115Vac/230Vac
- MED and DNV approved



#### AL105NX

- 113dB(A)
- 1Hz Xenon strobe
- 64 tones, 4 stage alarm
- IP66

- 24Vdc/28Vdc /24Vac/115Vac/230Vac
- MED and DNV approved











## Audio/Visual Alarm Equipment



#### **AL112NX**

- 120dB(A)
- 1Hz Xenon strobe
- 64 tones, 4 stage alarm
- IP66

- 12Vdc/24Vdc/48Vdc /24Vac/115Vac/230Vac
- MED and DNV approved



#### **AL121X**

- 124 db(A)
- 1Hz Xenon beacon
- 64 tones, 4 stage alarm
- IP66

- 12Vdc/24vdc/48vdc /115Vac/230Vac
- MED and DNV approved



#### SONF1

- 100dB(A)
- 10 tones, 2 stage alarm
- IP66

- 24Vdc
- Red, white or grey
- MED and DNV approved













#### **A105N**

- 113dB(A)
- 64 tones, 4 stage alarm
- IP66

- 24Vdc/48Vdc/115Vac/230Vac
- MED and DNV approved



#### **A112N**

- 120dB(A)
- 64 tones, 4 stage alarm
- IP66

- 24Vdc/48Vdc/115Vac/230Vac
- MED and DNV approved



#### **A121**

- 124 db(A)
- 64 tones, 4 stage alarm
- IP66

- 12Vdc/24vdc/48vdc /115Vac/230Vac
- MED and DNV approved



#### BEXS110D

- 110dB(A)
- 32 tones, 3 stage alarm
- IP66 & 67 (third party tested)
- 24Vdc
- Explosion proof
- MED and DNV approved











