

# PLEASURE CRAFT & SMALL COMMERCIAL

(for <24m vessels not requiring marine approvals)

## Marine 1 & 2 Zone Conventional Detection Systems

Specifically designed to meet the requirements for small boat fire detection, this range is ideally suited for both new build and aftermarket retro-fit. Simply mounted through a 55mm hole and with a membrane front face giving excellent protection from the elements the units can be powered by either 12V or 24V.

Coupled to 'Orbis' Marine Approved Detection devices from Apollo, users can be confident that this low cost option will give many years of trouble free protection.

Measuring just 66mm x 66mm the detection panels can be mounted in the most convenient space available and with four different options available are suitable for many Pleasure Craft (ISO 9094, RCD) and Small Commercial Vessels (MGN 280) under 24M

### Specifications

- Minimum (alarm current) 10mA
- Operating voltage 9 - 30vdc
- Maximum current per zone 320mA (including EOL)
- Siren/Buzzer output 12vdc @ 800mA
- Extinguisher Output Unit Supply vdc @ 500mA
- Charged Input 10 to 30vdc
- Supply voltage @ 12vdc Maximum sensors = 14 per zone (2K2 EOL)
- Supply voltage @ 24vdc Maximum sensors = 8 per zone (5K6 EOL)

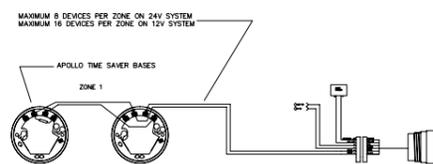
### Dimensions:

- Face 66mm x 66mm x 5mm
- Depth Required 90mm
- Hole Size 55mm



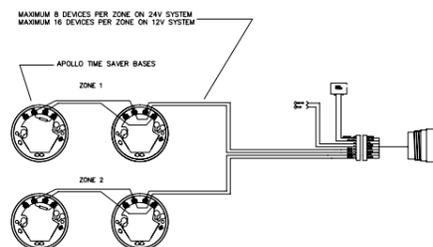
### FR-1000

- Single Zone
- 12/24V Supply
- Max 14 Detection Devices 12V
- Max 8 Detection Devices 24V



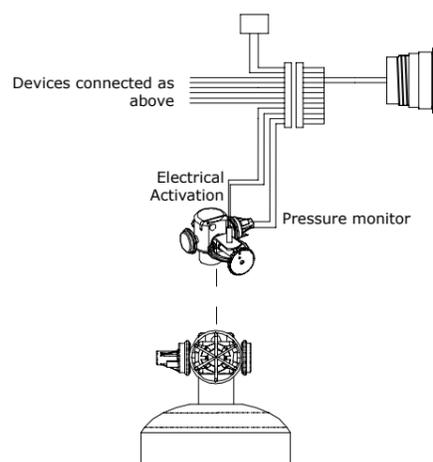
### FR-2000

- Dual Zone
- Labelled 'Engine Room' & 'Accom'
- 12/24V Supply
- Max 14 Detection Devices per Zone 12V
- Max 8 Detection Devices per Zone 24V



### FRA-1000

- Single Zone
- 12/24V Supply
- Max 14 Detection Devices 12V
- Max 8 Detection Devices 24V
- Electrical Extinguisher Activation



### FRA-2000

- Dual Zone
- 12/24V Supply
- Labelled 'Engine Room' & 'Accom'
- Max 14 Detection Devices 12V
- Max 8 Detection Devices 24V
- Electrical Extinguisher Activation

## Marine 4,8 & 16 Zone Conventional Detection Systems

(for <24m vessels not requiring marine approvals)

For those applications requiring more than 2 Zones, the FR4000, 8000 or even the 16000 Fire Detection unit is the perfect choice, providing an intelligent networked solution, and utilising the same Apollo 'ORBIS' Marine approved detection devices. This 100mm x 100mm unit features an 8 line Blue backlit LCD display making for easy reading in most lighting conditions.



### FR-4000/8000/16000

Master Control Unit

Features include:

- Full indication from one central location on your boat.
- Visual indication of Fire or Fault.
- Audible indication of Fire or Fault.
- Isolate any zone.
- All zone names programmable e.g. (Saloon) (Engine Room) (Upper Deck) (Master Cabin).
- Blue Backlight

### FR-100

Input module:  
Zone controller which manages the sensors.

Features include:

- 8 separate zone inputs.
- Output Relay's x 2.
- 10 A resistive @ 24VDC.
- Relay 1 & relay 2 close on Fire detection.
- Relay 1 opens when alarm is muted.
- Relay 2 opens when all zones are OK.

### FEC-6

Engine room controller unit (optional).

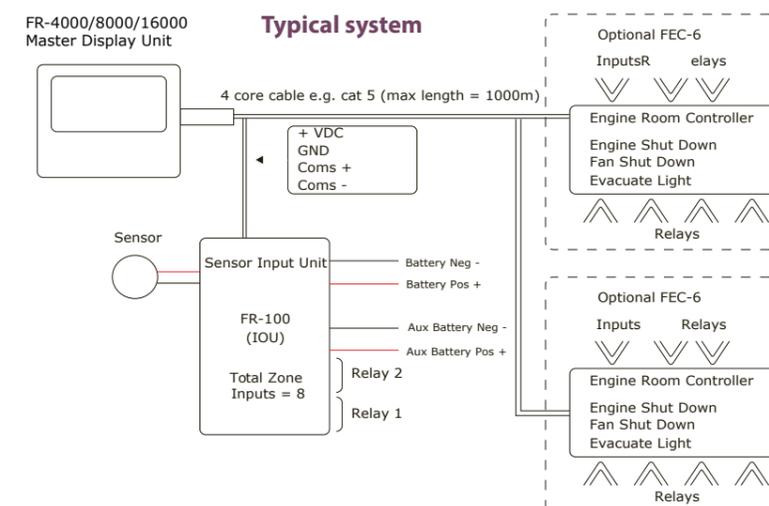
Features include:

- 6 relays.
- Output relay 1 to 4 = 10 A resistive @ 24VDC.
- Output relay 5 & 6 = 1 A resistive @ 30VDC.
- Relay 4 activated on a programmable timer.
- Relay 5 opens when alarm is muted.
- 4 inputs (for extinguisher cylinder empty/fill switches).
- L=105mm x W=85mm x H=57mm
- DIN rail mount

The FR-4000/8000/16000 have been developed to allow monitoring of up to 4/8/16 zones. Each zone can have up to 18 sensors attached. It is a network system consisting of the FR-4000/8000/16000 Master Display Unit and one or two FR-100 Eight Zone Inputs.

All devices are interconnected by a 2 wire network cable. The Master Display Unit (MDU) controls communication with all attached Input and Output units. The network cable can be up to 1000 meters in length.

FR-4000/8000/16000 Master Display Unit



# MARINER II, IV & VIII

## Marine 2,4 & 8 Zone Conventional Detection Systems

(for <24m vessels not requiring marine approvals)



### Product Overview

The Mariner range consists of a series of conventional fire alarm control panels designed in accordance with European standards BS EN54-2 and BS EN54-4 Fire Detection and Fire Alarm systems - Control and Indicating Equipment.

The range consists of 2, 4 and 8 zone control panels.

### Features

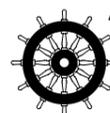
- Fully programmable using simple menu options
- Adjustable sounder delay time
- Sounder configuration options
- Zonal sounder delay detectors only
- Zonal sounder delay call points only
- Coincidence input selection
- I.S Barrier selection by zone
- Short circuit fire by zone
- Silent zones
- Zone input delay
- General panel configuration
- Simple, single board construction
- Installer friendly
- Compatible with wide range of detection devices
- Two monitored sounder outputs
- Auxiliary power output
- 32 Detection devices per zone

### Panels

Product	Description	Standby	Alarm	Size(mm)
Mariner 2	2 zone control panel	0.065 Amps	0.1 Amps	352x225x60
Mariner 4	4 zone control panel	0.075 Amps	0.21 Amps	352x225x60
Mariner 8	8 zone control panel	0.093 Amps	0.55 Amps	352x225x60

### Technical

Construction	- 1.2mm mild sheet steel
IP Rating Finish	- IP30
Colour - lid & box	- Epoxy powder coated
Colour - controls plate & labels	- Black - fine texture
Weight	- 2.3kg
Power supply DC rating	- 24V 3 Amps
Fault contact rating	- 30V DC 1 Amp
Local fire contact rating	- 30V DC 1 Amp
Fire contact rating	- 30V DC 1 Amp
Sounder output rating	- 0.5A per output (max 1.6A over all outputs)
Detection zone current	- 1.6 milliamps
Detection zone EOL resistor	- 6k8 5%
Sounder output EOL resistor	- 10k 5%
Cable capacity	- 2.5mm <sup>2</sup> per terminal
Operating temperature	- -5°C to +40°C
Operating humidity	- <95% (non condensing)



'Mariner Ocean' panels are fully approved to European standards EN54-2 & 4, Fire Detection and Alarm Systems– Control & Indicating Equipment & the Marine Equipment Directive.

## 2 & 4 Zone Conventional Fire Detection Panel

AVAILABLE > MAY 2015

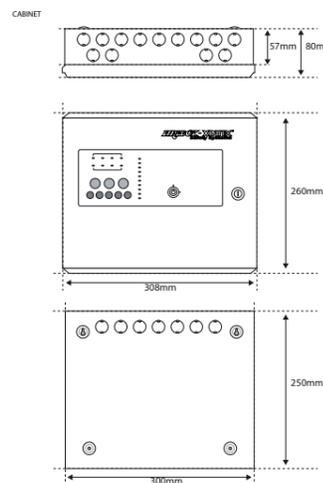
Mariner 2 or 4 zone Conventional FACP with integral power supply & space for standby batteries.

Mariner panels are fully approved to European standards EN54-2 & 4, Fire Detection and Alarm Systems – Control & Indicating Equipment & the Marine Equipment Directive.

Two or four fire zone circuits are provided plus two monitored sounder circuits.

Fire & Fault VFCO relays, Fire & Fault switched negative outputs, class change and an alert input are also included.

The fire zone Fire & Fault switched negative outputs, class change and an alert input are also included.



### Technical

- Construction**
- Enclosure finish**
- Mains voltage supply**
- Mains supply fuse**
- Power supply DC rating**
- Aux 24V supply**
- Battery (24 hour standby)**
- Temperature Range**
- Fault contact rating**
- Fire contact rating**
- Sounder output rating**
- Detection loop**
- Detector protocol**

## MARINER Ocean II IV



- 1.2mm sheet steel, IP30
- Interpon Radon, Silver Grey, Epoxy Powder Coat
- 230V AC 50Hz
- 1.6A 250V
- 28V 3A
- Fused at 500mA
- 9Ah 12V (2 per panel) (non-networked)
- -5C to +40C max RH 95%
- 30V DC 3 amp
- 30V DC 3A
- Fused at 500mA each
- 400mA output
- Apollo Orbis Marine

## 8 & 12 Zone Conventional Fire Detection Panel

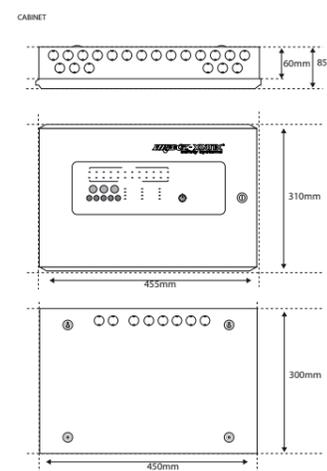
AVAILABLE > MAY 2015

Mariner 8 or 12 zone Conventional FACP with integral power supply & space for standby batteries.

Simplicity is one of the most important aspects when considering the end user of a fire alarm panel. The colour coded buttons and the 3 step silence functionality gives non-technical users the confidence to correctly manage their fire alarm system.

As standard the panels provide two monitored sounder circuits, Fire & Fault VFCO relays, Fire & Fault switched negative outputs, class change and an alert input are also included.

The fire zone Fire & Fault switched negative outputs, class change and an alert input are also included.



### Technical

- Construction**
- Enclosure finish**
- Mains voltage supply**
- Mains supply fuse**
- Power supply DC rating**
- Aux 24V supply**
- Battery (24 hour standby)**
- Temperature Range**
- Fault contact rating**
- Fire contact rating**
- Sounder output rating**
- Detection loop**
- Detector protocol**

## MARINER Ocean VIII XII



- 1.2mm sheet steel, IP30
- Interpon Radon, Silver Grey, Epoxy Powder Coat
- 230V AC 50Hz max current 1.2A
- 4A 250V
- 28V 3A
- Fused at 500mA
- 9Ah 12V (2 per panel) (non-networked)
- -5C to +40C max RH 95%
- 30V DC 3A
- 30V DC 3A
- Fused at 500mA each
- 400mA output
- Apollo Orbis marine

# Conventional Marine Devices



## Heat Detector

The Orbis Marine Heat Detector uses a single thermistor to sense the air temperature around the detector. There are twelve heat detectors in the Orbis Marine range designed to suit a wide variety of operating conditions

- OMHD-01 HEAT A1R
- OMHD-02 HEAT A2S
- OMHD-03 HEAT BR
- OMHD-04 HEAT BS
- OMHD-05 HEAT CR
- OMHD-06 HEAT CS

refer to table for product codes

### with flashing LED

- OMHD-13 HEAT A1R
- OMHD-14 HEAT A2S
- OMHD-15 HEAT BR
- OMHD-16 HEAT BS
- OMHD-17 HEAT CR
- OMHD-18 HEAT CS



## I.S Heat Detector

The Orbis IS Heat Detector monitors temperature by using a single thermistor network which provides a voltage output proportional to the external air temperature. The Orbis IS range incorporates seven heat detector classes to suit a wide range of operating conditions

- OMHDS-01 I.S HEAT A1R
- OMHDS-02 I.S HEAT A2S
- OMHDS-03 I.S HEAT BR
- OMHDS-04 I.S HEAT BS
- OMHDS-05 I.S HEAT CR
- OMHDS-06 I.S HEAT CS

refer to table for product codes

### with flashing LED

- OMHDS-13 I.S HEAT A1R
- OMHDS-14 I.S HEAT A2S
- OMHDS-15 I.S HEAT BR
- OMHDS-16 I.S HEAT BS
- OMHDS-17 I.S HEAT CR
- OMHDS-18 I.S HEAT CS



## Multisensor Detector

The Orbis Marine Multisensor Detector benefits from the same false alarm reduction technology as the optical detector. It is a thermally enhanced smoke detector and so will not give an alarm from heat alone

OMSD-02 MultiSensor  
OMSD-12 MultiSensor with flashing LED



## I.S MultiSensor Detector

The Orbis IS Multisensor Smoke Detector benefits from the same false alarm technology as the Optical Smoke Detector. It is a thermally enhanced smoke detector so will not give an alarm from heat alone

OMMDS-01 - I.S MultiSensor  
OMMDS-02 - I.S Multisensor (flashing LED)



## Manual Call Points

The Conventional Marine Manual Call Point has been designed to operate on conventional marine fire detection systems. It is compliant with EN54-11 and Marine Equipment Directive 96/98/EC and is available in both indoor and outdoor variants

- Plug and play terminal connections for fast wiring
- Resettable element
- Indoor and outdoor variants available

92021 - Manual Call Point  
92022 - Manual Call Point IP65  
92023 - Manual Call Point -IS



## Smoke Detector

The Orbis Marine Optical Smoke Detector operates on the well established light scatter principle. However, the sensing technology is radically different in design from previous optical detectors and significantly reduces false alarms.

- Responds to stationary flames with no flicker
- Sensitive to UV radiation emitted by flames during combustion
- Compact flame detector which fits into Series 65 bases
- Zone-powered

OMSD-01 Optical Smoke  
OMSD-11 Optical Smoke with flashing LED



## I.S Smoke Detector

The Orbis IS Optical Smoke Detector works using the light scatter principle and is ideal for applications where slow-burning or smouldering fires are likely

OMSDIS-01 - I.S Optical Smoke  
OMSDIS-02 - I.S Optical Smoke with flashing LED



## Timesaver Base

The Orbis Marine Timesaver Base\* is a completely new design that provides installers with an open working area with fixing holes shaped to allow a simple mounting procedure

## Relay Base

The Orbis Marine Relay Base incorporates a single-pole voltage-free change over contact for switching ancillary equipment. When the detector changes to the alarm state, the relay is energised, causing the contact to change state. The contact will remain in this condition until the detector is reset

OMDB-01 - Timesaver Base  
OMDB-04 - Relay Base  
OMDBIS-01 - IS Base



## UV Flame Detector

The Series 65 Mounted UV Flame Detector is designed to protect enclosed indoor areas where open flaming fires may be expected. The detector has a single UV sensor with a narrow spectral response in order to discriminate between flames and most spurious sources of radiation

OMFD-01 - UV Flame Detector  
OMFB-01 - FD Mounting Base



## Galvanic Barrier

The Galvanic barrier is available in the XP95 IS range and the Orbis IS range. It can be installed in safe areas and ensures system integrity.

92020 - Galvanic Barrier

# Conventional Sounders & Beacons

(Also for ASM Panel external sounder circuits)



## Sounder

Available with Shallow or Deep Base.

- 9-28V DC
- 102dB(A)
- IP54 (S)
- IP65 (D)
- 16mA
- 93mm dia x 63mm (S)
- 93mm dia x 93mm (D)

92024 - Sounder - Shallow  
92025 - Sounder - Deep



## Sounder / Beacon

Available with Shallow or Deep Base.

- 18-28V DC
- 101dB(A)
- IP54 (S)
- IP65 (D)
- 68mA
- 93mm dia x 92mm (S)
- 93mm dia x 121mm (D)

92026 - Sounder Beacon - Shallow  
92027 - Sounder Beacon - Deep



## Sounder

Available in Red or White

- 9-28V DC
- 100dB(A)
- IP66
- 5mA
- 110mm x 110mm x 105mm

92028 - Sounder - Red  
92029 - Sounder - White



## Beacon - Deep Base

- 10-60V DC
- IP65
- 185-45mA 10Cd (10)
- 510-210mA 15Cd (15)
- 93mm dia x 94mm

(Current drops at higher voltage)

92033 - Beacon - 10Cd  
92039 - Beacon - 15Cd



## Beacon

- 10-30V DC
- IPC 21 (S) User selectable
- IPC 33 (D)
- 3-5mA
- >0.5/1/3CD User selectable
- 93mm dia x 83mm

92032 - Beacon - Shallow  
92038 - Beacon - Deep



## High Output Sounder / Beacon

- 18-30V DC
- 110dB(A)
- Sounder: 105mA (110)
- 450mA (120)
- Beacon: 250mA / 3.6j (110/120)
- IP66
- 168mm x 212mm x 155mm

(Specification based on using product at 24Vdc)

92035 - Sounder Beacon 110  
92041 - Sounder Beacon 120



## High Output Sounder

- 18-30V DC
- 110dB(A) / 105mA (110)
- 120dB(A) / 450mA (120)
- IP66
- 168mm x 168mm x 155mm

(Specification based on using product at 24Vdc)

92034 - Sounder 110  
92040 - Sounder 120



## High Output Sounder / Beacon - Midi

- 9-60V DC
- 108dB(A)
- Sounder: 24mA
- Beacon: 200mA / 2.5j
- IP66
- 165mm x 173mm x 132mm

(Specification based on using product at 24Vdc)

92037 - Sounder Beacon - Midi



## High Output Sounder - Midi

- 9-60V DC
- 108dB(A) / 24mA
- IP66
- 165mm x 136mm x 132mm

(Specification based on using product at 24Vdc)

92036 - Sounder - Midi



## ATEX area Sounder

The IS-mA1 is a compact, 100dB(A) alarm sounder. Approvals include ATEX, IECEx and GOST-R for Zone 0 applications and FM approval for Class I Division 1 and Class I Zone 0 applications.

- Input overload and reverse current protection
- End of line resistor certified
- Auto synchronised sound output
- Available with custom tone configurations and frequencies

90932 - ATEX Sounder



- Strobe Flash Rate 1 flash per second
- Nominal Voltage Regulated 12 DC/FWR or regulated 24 DC/FWR1
- Operating Voltage Range 2 8 to 17.5 V (12 V nominal) or 16 to 33 V (24 V nominal)
- Max Candela 85
- Max Strobe Current 258mA
- Max volume 101dB(A)
- Max Horn Current 75mA

WPS-24 - Sounder Beacon