



Orbis

Marine Optical/Heat Multisensor Detector



Product overview		
Product	Marine Optical/Heat Multisensor Detector	
Part No.	ORB-OH-43001-MAR	
Product	Marine Optical/Heat Multisensor Detector with flashing LED	
Part No.	ORB-0H-43003-MAR	

Approvals











Product information

The Orbis Marine Optical / Heat Multisensor Detector is recognised as a good detector for general use but is additionally more sensitive to fast burning, flaming fires - including liquid fires - than optical detectors.

They can be readily used instead of optical detectors but should be used as the detector of choice for areas where the fire risk is likely to include heat at an early stage in the development of the fire.

The Multisensor detector has two sensors, one for smoke and one for heat with the alarm decision derived from either sensor or combination of both.

- · Responds well to fast-burning, flaming fires
- · Transient rejection algorithms reduce false alarms
- Automatic drift compensation with DirtAlert™, a yellow flashing LED, to easily identify dirty detectors
- Red flashing LED at start up confirms the device is operating. SensAlert™, yellow flashing LED indicates faulty operation
- FasTest™ takes just four seconds to test and confirm detectors are functioning correctly

Technical data

All data is supplied subject to change without notice. Specifications are typical at 24 V, 23°C and 50% RH unless otherwise stated.

Detection principle Smoke: Photo-electric detection of

light scattered by smoke particles Heat: Temperature-dependent

resistances.

Sampling frequency Once every four seconds

Operating voltage 8.5 V dc to 33 V dc

Supply Wiring Two wire supply, polarity sensitive

6 V

95 uA

95 uA

20 mA

Maximum polarity reversal 200 ms

< 20 seconds Power up time

Minimum 'detector active'

Power-up surge current at

Average quiescent current

at 24 V

Alarm current 12 V

24V 40 mA 600 Ω Alarm load 5 V - 33 V Holding voltage

Minimum holding current 8 mA Minimum voltage to light

alarm LED

Alarm reset voltage < 1 V

Alarm reset time One second

Alarm indicator Integral indicator with 360° visibility Remote output LED (-) 1.2 $k\Omega$ connected to negative supply

-40°C to +70°C

0% to 98% RH

characteristic

Operating and storage

temperature

Humidity (no condensation

or icing)

Effect of atmospheric pressure on optical sensor

Effect of wind speed None

IP Rating designed to IP23D

Standards & approvals EN54-5, EN54-7, MED, LR, BV, ABS and CCS

None

Dimensions 97 mm diameter x 31 mm height

100 mm diameter x 46 mm height in

Weight 75 g detector

135 g detector with base

Materials Housing: White flame-retardant

polycarbonate

Terminals: Nickel plated stainless

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EMC Directive 2014/30/EU

The Orbis Marine Optical/Heat Multisensor Detector complies with the essential requirements of the EMC Directive 2014/30/EU, provided that it is used as described in this data sheet.

A copy of the Declaration of Conformity is available from the Apollo website: www.apollo-fire.co.uk

Conformity of the Orbis Marine Optical/Heat Multisensor Detector with the EMC Directive, does not confer compliance with the directive on any apparatus or systems connected to them.

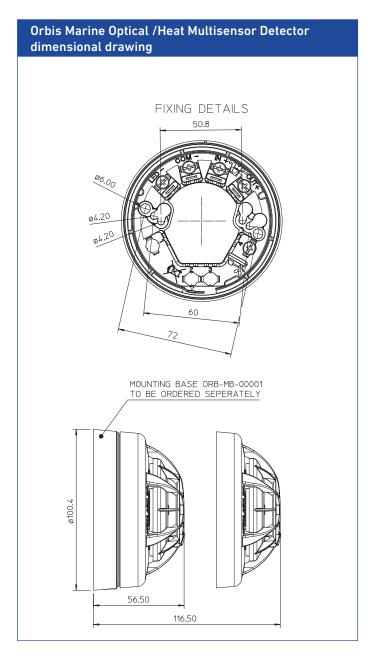
Construction Products Regulation 305/2011/EU

The Orbis Marine Optical/Heat Multisensor Detector complies with the essential requirements of the Construction Products Regulation 305/2011/EU.

A copy of the Declaration of Performance is available from the Apollo website: www.apollo-fire.co.uk

Marine Equipment Directive 2014/90/EU

The Orbis Marine Optical/Heat Multisensor Detector complies with the essential requirements of the Marine Equipment Directive 2014/90/EU.



Orbis detectors; LED status

Feature	Description	Red LED status	Yellow LED status
StartUp™	Confirms that the detectors are wired in the correct polarity	Flashes once per second	No Flash
FasTest™	Maintenance procedure, takes just four seconds to functionally test and confirm detectors are functioning correctly	Flashes once per second	No flash
DirtAlert™	Shows that the drift compensation limit has been reached	No flash	Flashes once per second in StartUp (Stops flashing when StartUp finishes)
SensAlert™	Indicates that the sensor is not operating correctly	No flash	Flashes every four seconds (Flashes once per second in StartUp)
Normal operation	At the end of StartUp and FasTest (without flashing LED as standard)	No flash	No flash
Flashing LED version	Detectors red LED flashes in normal operation (at the end of FasTest)	Flashes every four seconds	No flash

