



MARINE DIVISION

Certificate number: 14063/B0 BV

File number: AP 3633

Product code: 3784H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

APOLLO FIRE DETECTORS LIMITED

Havant - UNITED KINGDOM

for the type of product

HEAT FIRE DETECTORS

Orbis / Orbis IS - Conventional Heat Detector

Requirements:

BV Rules for the Classification of Steel Ships.

EN 54-5.

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 20 Dec 2014

For BUREAU VERITAS,

At BV LONDON, on 09 Sep 2009,

Spencer Yule



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

-Table 1- ORB-HT-4 serie

Orbis - Conventional Heat Detector - Fire Detector	
Orbis Product/Part N°	Description
ORB-HT-41001-MAR	Class A1R with SensAlert and FasTest
ORB-HT-41002-MAR	Class A2S with SensAlert and FasTest
ORB-HT-41003-MAR	Class BR with SensAlert and FasTest
ORB-HT-41004-MAR	Class BS with SensAlert and FasTest
ORB-HT-41005-MAR	Class CR with SensAlert and FasTest
ORB-HT-41006-MAR	Class CS with SensAlert and FasTest
ORB-HT-41013-MAR	Class A1R with SensAlert, FasTest and Flashing LED
ORB-HT-41014-MAR	Class A2S with SensAlert, FasTest and Flashing LED
ORB-HT-41015-MAR	Class BR with SensAlert, FasTest and Flashing LED
ORB-HT-41016-MAR	Class BS with SensAlert, FasTest and Flashing LED
ORB-HT-41017-MAR	Class CR with SensAlert, FasTest and Flashing LED
ORB-HT-41018-MAR	Class CS with SensAlert, FasTest and Flashing LED

-Table 2- ORB-HT-5 serie

Orbis IS - Conventional Heat Detector - Fire Detector	
Orbis Product/Part N°	Description
ORB-HT-51145-APO	Class A1R with SensAlert and FasTest
ORB-HT-51146-APO	Class A1R with SensAlert, FasTest and Flashing LED
ORB-HT-51147-APO	Class A2S with SensAlert and FasTest
ORB-HT-51148-APO	Class A2S with SensAlert, FasTest and Flashing LED
ORB-HT-51149-APO	Class BR with SensAlert and FasTest
ORB-HT-51150-APO	Class BR with SensAlert, FasTest and Flashing LED
ORB-HT-51151-APO	Class BS with SensAlert and FasTest
ORB-HT-51152-APO	Class BS with SensAlert, FasTest and Flashing LED
ORB-HT-51153-APO	Class CR with SensAlert and FasTest
ORB-HT-51154-APO	Class CR with SensAlert, FasTest and Flashing LED
ORB-HT-51155-APO	Class CS with SensAlert and FasTest
ORB-HT-51156-APO	Class CS with SensAlert, FasTest and Flashing LED
ORB-HT-51157-APO	Class A1S with SensAlert and FasTest
ORB-HT-51158-APO	Class A1S with SensAlert, FasTest and Flashing LED

2. DOCUMENTS AND DRAWINGS :

2.1 - Drawings specification N°s:
100-HT-00002, 200-HT-00002, 400-HT-00002, 100-HT-00001,
200-HT-00001, 400-HT-00001, 48000-001, 38531-909.

2.2 - Installation guide ref: 39214-104/Issue 5 draft E

2.3 - Product guide ref: PP2250 IS PG

3. TEST REPORTS :

3.1 - BRE/LPCB test reports N°s:

- 210363 dated 05 Jan. 2004
- 211499 dated 05 Jan. 2004
- 211499W/A dated 22 Dec. 2004
- 211499W/B dated 29 Mar. 2004
- 227758 dated 01 Aug. 2006

3.2 - Apollo test report N°: 1884.0 dated 10 Sep. 2004.

3.3 - Baseefa certificate N° 06ATEX0007X.

3.4 - Certificate of conformity to EN54-5 N° 010R issue N°12 issued by
Loss Prevention Certification Board (LPCB) on 17 Aug. 2006.

4. APPLICATION / LIMITATION :

4.1 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.2 - Approval also valid for ships having to comply with SOLAS 74 Convention, as amended, and for units having to comply with IMO Resolution A649 (The "MODU Code").

4.3 - The fitting aboard to be the same as used for the test.

4.4 - The equipment is not to be fitted in open deck or submerged area.

4.5 - Satisfactory performance tests should be witnessed on each installation by the Society's Surveyor after installation on board.

4.6 - An instruction manual covering operation, maintenance and testing should be placed on board each ship fitted with this Unit.

4.7 - The complete installation design showing the location of the detectors should be submitted to the Society's Surveyors for approval.

4.8 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.

4.9 - All Intrinsically Safe (IS) Products must incorporate a certified safety barrier or interface to limit the voltage and power to the circuit.

4.10 - Intrinsically safety type heat detectors EEx ia IIC T4 may be used in areas considered as dangerous due to the presence of flammable or explosive gases or vapours corresponding to the group IIC and to the temperature class T4 defined in IEC Classification, in accordance with BASEEFA certificates at Clause 3 above.

4.11 - The Associated fire alarm central unit used with the above equipment (cf. clause 1) shall be Type approved.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The Orbis / Orbis IS - Conventional Heat Detector and Fire Detector are to be manufactured, examined and tested by **APOLLO FIRE DETECTORS LIMITED** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **APOLLO FIRE DETECTORS LIMITED** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **APOLLO FIRE DETECTORS LIMITED** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

APOLLO FIRE DETECTORS LIMITED
36 Brookside Road
Havant
Hampshire
UNITED KINGDOM

6. MARKING OF PRODUCT :

- Maker's name or trade mark.
- Serial number of the units.
- Equipment type number or model identification under which it was type-tested.
- Ex. Informations, as relevant.

7. OTHERS :

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the Equipment at any time, and that **APOLLO FIRE DETECTORS LIMITED, Havant - United Kingdom** will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the Equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 14063/A1 BV issued on 23/01/2007 by the Society.

*** END OF CERTIFICATE ***