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Certificate number: 12244/B0 BV

File number: AP 3470

Product code: 3784H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections***TYPE APPROVAL CERTIFICATE***This certificate is issued to***APOLLO FIRE DETECTORS LIMITED**

Havant - UNITED KINGDOM

*for the type of product***HEAT FIRE DETECTORS**Discovery Series  
Heat Detector 58000-400 MAR.**Regulations and standards:**BUREAU VERITAS Rules for the Classification of Steel Ships.  
EN 54-5:2000 + A1:2002.*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 of the Regulations and standards mentioned above.***This certificate is valid until: 23 Mar 2014**

At Neuilly, on: 23 Mar 2009

**For BUREAU VERITAS,**  
By order of the Secretary

Approval office

Local office: BV LONDON  
Surveyor: S. Yule

L. COURREGELONGUE



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. 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 :

Discovery 58000-400 Heat Detector.

#### **Main Characteristics of Heat Detector Part No: 58000-400 MAR**

Type	Analogue Addressable with Conventional alarm facility during CIE processor fault.
Principle	Point Detector using a Thermistor.
Additional Function	Apollo Discovery Transmitting Protocol compatible with XP95 Systems
Sensitivity	Adjustable (5 Modes corresponding to Classes AIR, A2, A2S, CR and CS).
Protection Index	IP 53 Indoor.
Working Temperature	Min: -20°C, Max: According to Class of Detector
Power Supply	24 VDC (17 to 28 VDC)
Software Number / Issue	34000-010 / 3

*Note: The Detector is to be used in conjunction with the 45681-210 Mounting base.*

### 2. DOCUMENTS AND DRAWINGS :

#### **Apollo:**

Discovery Engineering Product Guide, No. PP2052/2004/Issue 4.  
 Build Standard Sheet, Product No. 5800-400 Issue 8  
 Drawings N° 58000-400 GA issue 2, 58000-400 CD Issue 6 and 43781-600 issue 6  
 Embedded Software Development, Issue 1, Rev. 1  
 Embedded Software Guidance 2008, Issue 1d.

### 3. TEST REPORTS :

**Apollo:** Test report N° 1657.0 dated 12/03/03.

**LPC:** Test report N° TE 90372 dated 16 April 1999.

**BRE:** EC-Certificate of Conformity

58000-400: No. 0832-CPD-0022 Issue 4 dated 17/11/2006

### 4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - 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").

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

4.5 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.

4.6 - The detectors are not to be used in hazardous areas.

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

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

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

4.10 - Only Hardware and Firmware / 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.

### 5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **Discovery 58000-400** Heat Detectors are to be manufactured, examined and tested by **APOLLO FIRE DETECTORS LIMITED** in accordance with the type(s) 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 are 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.
- According to EN 54-5.

**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:

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**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° 12244/A1 BV issued on 02/07/2004 by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***