



Marine & Offshore

Certificate number: 28060/B0 MED

File number: AP 1913

Item number: MED/3.51a

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

www.veristar.com

Notified Body 2690 - MARINE EQUIPMENT DIRECTIVE 2014/90/EU

EC TYPE EXAMINATION CERTIFICATE

as per Module B of Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations and Commission Implementing Regulation (EU) 2017/306 of 06 Feb. 2017

This certificate is issued to:

PRAXIS AUTOMATION TECHNOLOGY B.V.

LEIDERDORP - NETHERLANDS

for the type of product

**FIXED FIRE DETECTION AND FIRE ALARM SYSTEMS COMPONENTS [...] -
CONTROL AND INDICATING EQUIPMENT**

PRAXIS Mega-Guard Fire Alarm System (FAS) - P/N: 93.0.940

Requirements:

SOLAS 74 convention as amended, Regulations II-2/7, X/3, Reg. II-2/7.2.2, Reg. II-2/7.4, Reg. II 2/7.4.1,
IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 7,
IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 7
IMO Res. MSC.98(73) -(FSS Code)- as amended, 9, IMO MSC.1/Circ.1242,
EN 54-2 (1997) incl. /AC (1999) & /A1 (2006).
IEC 60092-504 Ed. 3.0 (2001) incl. /Corr.1 (2011), IEC 60533 (2015).

This certificate is issued on behalf of the French Maritime Authorities to attest that Bureau Veritas Marine & Offshore did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Directive 2014/90/EU of the European Parliament and of the Council of 23 July 2014 as transposed in the French Regulations.


This certificate will expire on: 01 Jun 2019

For Bureau Veritas Marine & Offshore Notified Body 2690,

At BV GRONINGEN, on 30 Jan 2018,

John Mondt



This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

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 Marine & Offshore. 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. Bureau Veritas Marine & Offshore is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore 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 Marine & Offshore 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:

- Product model or type designation :
Mega-Guard FAS (P/N 93.0.940)

- Product description:

The PRAXIS Mega-Guard FAS (P/N 93.0.940) is a Microprocessor-based conventional Fire Alarm System.

1.1 - Main Characteristics:

| | |
|-----------------------------|---|
| Capacity | Up to 4 Loops Up to 32 Detectors per Loop (128 Detectors Max.) |
| Associated Detectors | Mega-Guard, Tyco and Consilium (Smoke & Heat Detectors, Manual Call Points) |
| Communication Ports | 2 x Ethernet Ports (Main & Back-up), RS485 |
| Outputs | Relays (Fail, Alarm, Siren) |
| Power Supply | 2 x 24 VDC (Main & Back-up) |
| Software Version | v.1.25.x.x |

2. DOCUMENTS AND DRAWINGS:

PRAXIS Automation Technology:

Leaflet, Fire Alarm System

Fire Alarm Panel - Operator Guide No. PTD-Fire-Alarm-Panel-R1.09 dated 16 Nov. 2011

Drawing No. 93.0.940-M01 Rev. B dated 15-11-09

Development Guidelines (Software), Doc. WI-PI-02 Rev. 07 dated 20 May 2006

Release Notes for 1.25.1.0 dated 24.05.2011.

For modification A1 version:

PRAXIS Automation Technology:

- Failure Mode and Effect Analysis for FAS System Ref.: FMEA-FAS_Rev1.0, dated Jan 2017

- Failure Mode and Effect Analysis for AFAS System Ref.: FMEA-AFAS_Rev1.0, dated Jan 2017

3. TEST REPORTS:

PRAXIS Automation Technology:

Report Factory Acceptance Test (EN 54-2) - Fire Alarm Panel (93.0.940) dated 29.11.2010 (Witnessed by BV Surveyor)

Test Report - FAT E-series, Project Nr. NI10-006 dated 05-09-2010

Environmental Test Report Rev. 1.2 dated 09 Sep. 2010

Mega-Guard-E, EMC Tests Report Rev. 1.1 dated 09 Sep. 2010

Insulation Test Report Rev. 1.0 dated 08 Sep. 2010

Dry Heat Test Report Rev. 1.0 dated 09 Sep. 2010

Damp Heat Test Report Rev. 1.1 dated 09 Sep. 2010

Low Temperature Test Report Rev. 1.0 dated 09 Sep. 2010.

TNO:

TNO Vibration Test Report No. TNO-034-DTM-2010-00283 dated 25 Jan. 2010.

BICON:

EMC Test Report No. PRA-20091214-X1 dated 2010-04-01

EMC Test Report No. PRA-20100715-X1 dated 2010-08-02

EMC Test Report No. PRA-20100805-X1 dated 2010-08-27.

4. APPLICATION / LIMITATION:

- 4.1 - As per requirements of Regulations stated on front page of the Certificate.
- 4.2 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.
- 4.3 - The minimum safe distance at which the equipment may be mounted from a standard or a steering magnetic compass is not to be less than 5 m.
- 4.4 - Only type approved detectors shown to be compatible with the units shall be used with them.
- 4.5 - Power supply sources wiring:
The main (respective emergency) feeder shall run from the main (respective emergency) switchboard to the changeover switch without passing through any other distributing switchboard.
- 4.6 - 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.
- 4.7 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:
- PRAXIS Mega-Guard FAS (P/N 93.0.940).

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex II of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.
- 5.2 - For information concerning the production phase modules, **PRAXIS AUTOMATION TECHNOLOGY B.V.** has declared the following manufacturing site(s):

**ZIJLDIJK 24A 2352 AB LEIDERDORP
NETHERLANDS**

6. MARKING OF PRODUCT:

- 6.1 - According to EN 54-2.
- 6.2 - The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.
- 6.3 - When the marking and the title and version of the software are displayed only on the display, such information shall also be included in the equipment manual.
- 6.4 - Reference is made to MED 2014/90/EU chapter 2.
In particular Article 10.3 specifies that the wheelmark shall be followed by the identification number of the Notified Body involved in the production control phase (module D, E or F) and by the year in which the mark is affixed (4 digits or last 2 digits).

7. OTHERS:

- 7.1 - It is **PRAXIS AUTOMATION TECHNOLOGY B.V. - NETHERLANDS** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 - This certificate supersedes the Type Approval Certificate No. 28060/A1 MED issued on 09/02/2017 by the Society.

*** END OF CERTIFICATE ***