



Marine &amp; Offshore

Certificate number: 37353/B0 MED

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This certificate is not valid when presented without the full attached schedule  
composed of 7 sections  
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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) 2019/1397 of 06 Aug. 2019

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 (A) FAS

### 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 Res. MSC.391(95) -(IGF Code)- as amended, 11  
IMO MSC.1/Circ.1242, MSC.1/Circ.1487, MSC.1/Circ.1528  
EN 54-2:1997 incl. /AC:1999 & /A1:2006.  
IEC 60092-504:2016  
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: 22 Jul 2025**

**For Bureau Veritas Marine & Offshore Notified Body 2690,**

At BV GRONINGEN, on 22 Jul 2020,

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 (A)FAS**

- Product description:

The PRAXIS Mega-Guard (A)FAS is a Microprocessor-based Addressable Fire Alarm System.

Consisting of :

- FAS Operator Panel 93.0.960.8
- Fire Alarm I/O Board 98.6.034.804
- 5.7" TFT Touch Operator Panel 93.0.982.x & 93.0.983.x

#### **1.1 - Main Characteristics FAS Operator Panel:**

Model description	LCD Operator Panel
Part number	93.0.960.8
Software version	v.2.4.4.x
Mounting	Flush Panel
I/O connections	Detachable screw terminals for wires up to Ø 2.5mm <sup>2</sup>
Supply voltage	18-32VDC
Power consumption	Per AFAS Operator Panel Max. 7W Per AFAS I/O Module Max. 5W Per Loop Max. 12W Per Siren Max. 12W

#### **1.2 - Main Characteristics Fire Alarm I/O Board:**

Board Type	Addressable fire alarm system I/O board
Part number	98.6.034.804
Software version	v.2.4.4.x
Number of loops	2
Number of sensors	126 per loop
Input signal type Switch/Monitor Module*	Smoke detector Heat detector Flame detector Manual call point
Number of relay outputs	4
Outputs Switch/Monitor Module*	Fire alarm Fault Relay 1 Relay 2

**Note :** \* Switch/Monitor Module is an addressable digital input / output module

#### **1.3 - Main Characteristics TFT 5.7 Touch Operator Panel:**

Model description	TFT 5.7" Touch Operator Panel
Part number	93.0.982.x / 93.0.983.x
Software version	v.2.x
Mounting	Flush Panel
I/O connections	Detachable screw terminals for wires up to Ø 2.5mm <sup>2</sup>
Supply voltage	18-32VDC
Power consumption	15 W

**2. DOCUMENTS AND DRAWINGS:****PRAXIS Automation Technology:**

Drawing Package No. NPYX-XXX Rev. C dated 2013-08-20  
 Report FAT, No. FAT\_afas BV v0.3, dated May 09, 2014  
 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

**For modification B0 version:****PRAXIS Automation Technology:**

Declaration of conformity AFAS, dated 23-03-2020.  
 Operator Panel 5.7" Touch Screen Connection Diagram, Nos.: 93.0.982.x - F01, 93.0.983.x - F01, dated 09-02-2018.  
 Operator Panel 5.7" Touch Screen Mounting & Dimensions, Nos.: 93.0.982.x - M01, 93.0.983.x - M01, dated 20-12-2018.  
 5.7" TFT Operator Panel Schematic Diagram, No. 91.9.012-A01, dated 30-03-2018.  
 Addressable Fire Alarm System - Operator Guide No. PTD\_AFAS\_R1.001, dated 03-06-2019.  
 Addressable Fire Alarm System - Risk assessment, No. Risk Assessment AFAS\_Rev1.00, dated 13-01-2020.

**3. TEST REPORTS:****PRAXIS Automation Technology:**

Environmental Test Report Ship Automation System Rev.:1.3 for LCD Operator Panel, dated Sep 09, 2010  
 Environmental Test Report Ship Automation System Rev.:1.2 for AFAS I/O Board, dated Aug 19, 2013

**S2T:**

Vibration Test Report No. M13.001-P13.001, dated July 01, 2013.

**For modification B0 version:****BiCON:**

Test Report NO. PRA-20200302-X1, dated 11-03-2020.  
 EMC Test Report No. PRA-20190415-X2-01-EMC, dated 17-06-2019.  
 EMC Test Report No. PRA-20190415-X2-02-EMC, dated 17-06-2019.  
 Acoustic noise and signals test report No. PRA-20190415-X2-01-ANS, dated 17-06-2019  
 Acoustic noise and signals test report No. PRA-20190415-X2-02-ANS, dated 17-06-2019  
 Compass Safe distance test report No. PRA-10190415-X2-01-CSD, dated 17-06-2019  
 Compass Safe distance test report No. PRA-10190415-X2-02-CSD, dated 17-06-2019  
 EMC Test Report No. PRA-20190925-X1-01-EMC, dated 16-09-2019  
 EMC Test Report No. PRA-20190925-X1-02-EMC, dated 16-09-2019

**Sebert:**

Vibration test report, No.M19.001-P19.001, dated 18-04-2019

**PRAXIS Automation Technology:**

Damp Heat Test Report - 2018 MED - R1.00, dated 26-07-2019  
 Dry Heat Test Report - 2018 MED - R1.00, dated 05-07-2019  
 Low temperature Test Report - 2018 MED -R1.00, dated 18-07-2019  
 Power Failure and Variation Test Report -2018 MED-R1.00, dated 05-07-2019

**4. APPLICATION / LIMITATION:**

- 4.1 - As per Requirements of Regulations stated on the front page of this certificate.
- 4.2 - The equipment fulfils the EMC requirements for installation on the Deck Zone.
- 4.3 - The equipment is not to be fitted in hazardous areas.
- 4.4 - Prior to fit on board, assessment of compatibility or connectability with fire alarm unit is to be performed.
- 4.5 - 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.
- 4.6 - The following component(s) shall comply with the requirements of MED2014/90/EU, as amended, and be wheelmarked:  
 - Mega-Guard (A)FAS

**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 module E Product Quality Assurance or module 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):

**PRAXIS AUTOMATION TECHNOLOGY B.V.**  
**ZIJLDIJK 24A**  
**2352 AB LEIDERDORP**  
**NETHERLANDS**

**6. MARKING OF PRODUCT:**

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.** 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 EC Type Examination Certificate No. 37353/A1 MED issued on 09 Feb 2017 by the Society.

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