



UK Approved Body Authorised
by the MCA

Certificate number: 74864/A0 UK

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

Approved Body 8517 - UNITED KINGDOM MARINE EQUIPMENT APPROVAL

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This is to certify that Bureau Veritas SA UK Branch Office did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, subject to any conditions in the schedule attached hereto.

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

The attached (schedule of approval) forms part of this certificate.

This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with.

This certificate will expire on: 15 Aug 2025

Issued by Bureau Veritas SA UK Branch Office

(Approved Body 8517)

At BV GRONINGEN, on 05 Jul 2023,

Olaf RUITER

This certificate was created electronically and is valid without signature



Note 1: This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

Note 2: During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

Note 3: "The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body."

Note 4: In case limitations of use apply, these should be indicated in the Annex.

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 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 ²
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 ²
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
 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:**S2T:**

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

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:

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
 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.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - This certificate alone does not allow the applicant to issue the UK Declaration of Conformity and to affix the mark of conformity (United Kingdom conformity mark) 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 Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, is to be complied with and controlled by a written inspection agreement with an Approved 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

5.3 - The following component(s) shall comply with the requirements of Merchant Shipping (Marine Equipment) Regulations 2016, as amended, and be marked with the United Kingdom Conformity Mark:

- Mega-Guard (A)FAS

6. MARKING OF PRODUCT:

Reference is made to the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, Part3:

In particular Article 15.3 specifies that the United Kingdom conformity mark shall be followed by the identification number of the Approved 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:

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.

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