DNV·GL

Certificate No:
MEDB00003V1

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Heading control system (HCS) and Heading control system for high speed craft

with type designation(s)
AlphaPilot MFM

Issued to
Alphatron Marine B.V.
Rotterdam, Netherlands

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
item No. MED/4.16. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.342(IX), IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.64(67) Annex 3, IMO Res. MSC.302(87)
item No. MED/4.40. SOLAS 74 as amended, Regulation X/3, IMO Res. A.694(17), IMO Res. A.822(19), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO MSC.1/Circ.1349

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-10-29**.

Issued at **Høvik** on **2018-10-30**

DNV GL local station:
Rotterdam, Product Certification /Verification

Approval Engineer:
Roger Lauritsen

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Job Id: **344.1-007931-1**
Certificate No: **MEDB00003V1**

Product description

AlphaPilot MFM consist of

Description	Unit Type Designation	SW ver.
Control Panel	AlphaPilot MFM GY AlphaPilot MFM BK	10.00.xx.yy 10.00.xx.yy
Control Unit	MCU, including: - Main MC - Rudder MC - Thruster MC Or MCU-MS, including: - Main MC - Rudder MC - Thruster MC And optionally ACU including - Rudder MC - Thruster MC Or ACU-MS including - Rudder MC - Thruster MC	 05.07.xx.yy 07.07.xx.yy 04.07.xx.yy 05.07.xx.yy 07.07.xx.yy 04.07.xx.yy 07.07.xx.yy 04.07.xx.yy 07.07.xx.yy 04.07.xx.yy
Lever (Optional)	FU Tiller ROT GY FU Tiller ROT BK	30.01.xx.yy 30.01.xx.yy
Mode Switch (Optional)	Mode Switch 2 Pos GY Mode Switch 2 Pos BK Mode Switch 3 Pos GY Mode Switch 3 Pos BK	30.04.xx.yy 30.04.xx.yy 30.04.xx.yy 30.04.xx.yy
Feedback unit (Optional)	Alpha Rudder Feedback Unit MD Alpha Rudder Feedback Unit HD	N/A N/A

Application/Limitation

- A change-over control from automatic to manual steering shall be provided and located easily accessible to the officer of the watch.
- Arrangments and components for main steering is not part of this approval and need separate certification.
- The TRACK control mode shall only be available when the HCS is part of an approved Track Control System

Type Examination documentation

DNV GL No	Drawing No	Rev.	Title
31	242461-1		Report: SGS, Environmental tests
29	PTP-AP3000-TE	E	Report: Performance tests
30	PTP-AP4000-TE	B	Report: Performance tests
9	360418r00		Report: Nemko, Flicker test AlphaPilot MFM
32		A, March 2018	Report: AlphaPilot MFM Performance test program and report
28		V1.1	Manual: Alphatron FU Tiller ROT Operation Manual
26		V1.5	Manual: Alphatron AlphaPilot MFM Operation Manual
27		V1.4	Manual: Alphatron AlphaPilot MFM Installation Manual

Tests carried out

- Environmental tests, IEC 60945 (2002)
- Performance tests, ISO 11674 (2006)
- Performance tests for High Speed Crafts, ISO 16329 (2003)
- Performance tests, DNVGL Rules pt. 6. Ch.3 Sec.3. 6.2.3 (July 2018)
- Serial Interface tests, IEC 61162-1 (2016) and IEC 61162-2 (1998)
- Presentation tests, IEC 62288 (2014)

Marking of product

The name and contact address of the manufacturer and type designation of the product is to be affixed to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.