DNV·GL

Certificate No:
MEDB000066E

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Track control system (TCS)

with type designation(s)
NautoGuide C

Issued to
Raytheon Anschütz GmbH
Kiel, Schleswig-Holstein, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/4.33. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res A.694(17), IMO Res MSC.74(69), IMO Res MSC.191(79), IMO Res MSC.302(87)

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

This Certificate is valid until **2021-08-29**.
Issued at **Hamburg** on **2020-01-17**

DNV GL local station:
Hamburg

Approval Engineer:
Harald Bluhm

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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Job Id: **344.1-010088-1**
Certificate No: **MEDB000066E**

Product description

The Raytheon Anschütz Track Control System {TCS) Nautoguide C comprises of the following equipment necessary for functioning:

No.	Designation	Type Designation
1	**Transceiver units** Pedestal / Transceiver Pedestal / Transceiver Pulse Compression Arrays Waveguide coupler	**One or more units** As defined in separate certificate *)
2	**Main Processing Unit** Computer	As defined in separate certificate *)
3	**Display Units CAT 1, CAT 1H, CAT 1C, CAT 1HC** PPI diameter min. 320mm, may be also used for CAT 2 and CAT 3, ECDIS, INS	As defined in separate certificate *)
4	**Display Units CAT 2, CAT 2H, CAT 2C, CAT 2HC** PPI diameter min. 250mm, may be also used for CAT 3, ECDIS, INS	As defined in separate certificate *)
5	**User interface** Operator Units KVM Equipment	As defined in separate certificate *)
6	**Interfaces** Serial to ethernet converter VDR interface	As defined in separate certificate *)
7	**Network switches** Ethernet switches / Fiber LAN converter	As defined in separate certificate *)
8	**Optional components** Heading/Track Control System HCS/TCS	As defined in separate certificate *)

*) The Type Approval certificate TAA00002JU for Synapsis system platforms in its latest revision at the date of placing the system on the market is part of this certificate, for the relevant revision see also https://approvalfinder.dnvgl.com/.

The following Software is necessary for the Raytheon Anschütz Nautoguide C TCS:

No.	Designation	Type Designation
1	Operating System	Windows XP, embedded Windows 7, embedded
2	Bridge Integration Platform Synapsis Service Tool Synapsis ECDIS NX Nautopilot 5000 Operator Unit Autopilot Interface Unit	NB46-001 E04.XX NB48-001 E04.XX NB45-015 E04.XX 102-891 102-890 P0001 E03.xx 102-891 P0001 E01.xx

Type Examination documentation

Type Approval Documentation

DNVGL No	Document Id.	Rev.	Description
1	TTD04-02-18, TTD01-01-13	Latest	Overview Testreports
2	Dok. 4343		SYNAPSIS ECDIS

	Dok. 4386 Dok. 4428 Dok. 4452 7Cs Chart Handler 4002.Doc010102 3002.DOC010302		SYNAPSIS ECDIS NX SYNAPSIS Service Tool SYNAPSIS System Manual Operator Manual NP5000 Service Manual NP5000
3	TAA00002JU	Latest	Certificate: DNVGL, Synapsis platform

Tests carried out

Environmental and EMC testing: IEC 60945 (2002) incl. Corr. 1(2008)

Serial interface testing: IEC 61162-l(2016), IEC 61162-2(1998),IEC 61162-450(2011) incl. am1 (2016)

Presentation: IEC 62288 (2014)

Performance testing: IEC 62065 Ed.2 (2014)

Alert Management: IEC 61924-2(2012)

Marking of product

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and,where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.
END OF CERTIFICATE