

**POTVRDA O TIPNOM ODOBRENJU**
TYPE APPROVAL CERTIFICATEBr / No **03-001585/031293**

Potvrđuje se da je ovaj proizvod, u skladu s Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda, odobren za ugradnju na brodove i postrojenja pod nadzorom Hrvatskog registra brodova.

This is to certify that this product, on the basis of the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products, is approved for use on board ships and installations under supervision of the Croatian Register of Shipping.

TIP I OPIS PROIZVODA:**TYPE AND DESCRIPTION OF PRODUCT:****Remote Control System for Propulsion****MAREX OS II**
MAREX OS III
MAREX OS 3D**PROIZVOĐAČ:**
MANUFACTURER:**AVENTICS GmbH**
Ulmer Strasse 4
30880 LAATZEN, GERMANY**PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:**
THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

Hrvatski registar brodova: **Pravila za klasifikaciju brodova,**
Dio 12. – Električna oprema, Dio 13. – Automatizacija
Croatian Register of Shipping: *Rules for the classification of ships,*
Part 12. – Electrical Equipment, Part 13. – Automation

IACS UR E10:**DETALJI O PROIZVODU I UVJETIMA CERTIFIKACIJE DANI SU NA POLEĐINI.**
FURTHER DETAILS OF THE PRODUCT AND CONDITIONS FOR CERTIFICATION ARE GIVEN OVERLEAF.**ODOBRENJE VRIJEDI DO:** **2021-06-19**
APPROVAL IS VALID UNTIL:**Mjesto i datum** **Split, 2017-06-19**
Place and date**M.P.**
(Seal)

Marinko Popović, dipl.ing.

Napomena: Ova potvrda nije valjana ako se proizvod ili način njegove proizvodnje promijenio u odnosu na tipno ispitani proizvod. Proizvođač treba obavijestiti Hrvatski registar brodova o bilo kojoj izmjeni na proizvodu kako bi ishodio valjanu potvrdu.

Note: This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Croatian Register of Shipping of any modification or changes to the product in order to obtain a valid certificate.

PODROBNJI OPIS PROIZVODA:*DETAIL PRODUCT DESCRIPTION:*

MAREX OS II sustav daljinskog upravljanja porivom je mikroprocesorski sustav koji omogućava upravljanje glavnim motorom s prekretnom spojkom ili propelerom s promjenjivim usponom.

MAREX OS III sustav daljinskog upravljanja porivom je mikroprocesorski sustav koji omogućava upravljanje glavnim motorom s prekretnom spojkom. Upravljanje se može provoditi sa više različitih pozicija na brodu s tim da je samo jedno upravljačko mjesto aktivno u datom trenutku. Sustav se također može integrirati u složenije sustave upravljanja s Joystickom. Sustav može biti sastavljen od slijedećih komponenti:

The MAREX OS II Remote Control System is an microprocessor-based control system which provides proportional pitch control, engine RPM and power control.

The MAREX OS III Remote Control System is an microprocessor-based control system which provides main engine and reverse reduction gear control. Propulsion may be controlled from numerous control positions with one control position active at a time. System also provide option to integrate with higher level control systems such as Joystick.

System may consist of the following main components:

Control Unit MPC
Operating & Indicator Unit
Control Head
Actuator
8-bit IO Module
Accessories

PODRUČJE PRIMJENE / POSEBNI I GRANIČNI UVJETI:*APPLICATIONS / LIMITATIONS:*

Sustav je odobren za primjenu na brodovima s dodjeljenom oznakom automatizacije – AUT3.

Sustav je potrebno ispitati na brodu u skladu s zahtjevima klase.

System is approved for use on board a vessels granted with automation notations – AUT3.

On-board Test is to be performed in accordance with class requirements.

DOKUMENTACIJA ZA TIPNO ODOBRENJE:*TYPE APPROVAL DOCUMENTATION:*

Remote Control Marex OS II & Components Overview, 336100xxx0-SCP

Remote Control Marex OS III & Components Overview, 336100xxx0-SCP&VPL

MPC –modular- P.ID99, 336100xxx0-VPL

System FMEA, 03/06/2010

Marex OSII – Short description, 336100xxx0-SCP

Software – Validierung Marex OS II, O2WG

Software – Validierung Marex OS III, O3WG

Actuators – 3236980000, 3236980100, 3236980200, 3236981000, 3236981100

Operating & Indicator Unit 231 – 36223150x0, 362231xyz0

Operating Unit 242 – R41700xyz

Control Unit-OS-CAN (CANIO) – R419300370, R419300375, R419300376, R419300378

ControlHead & Control Unit 230 – 3622405312

Display (DISP) – R419300356

8-Bit IO (IO8) – 3460670010, 3460677162, 3460677172, 3460677182, R419300294, R419300299

PitchController – R419300553

ControlHead 230, 230 II, 240, 241, 244, 251 – 36223xyz0, R4170020xy, 2622400600, 3622401600, R41700xyzw, R4170003xy,

R417000750, R417001130, R417001230, R417001350, R417003000, R417003012, R417000107, R417000327

Joystick 530 – R417002407

MPC – 3460690300, 3460690320, 34606900x0, 34606901x0, 3460690400

External Power Unit (PWR) – 3460691510

Multi-Coupler I2C (PWR) – R419300157

Test Reports – See CRS letter of approval, 1360/TSE/VB/031293 dated 2017-06-16.

OZNAČAVANJE PROIZVODA:*MARKING OF PRODUCT:*

In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, supply voltage, other particulars and software version...).

UVJETI ZA CERTIFIKACIJU:*CONDITIONS OF CERTIFICATION:*

Bitne izmjene u hardveru i softveru moraju se odobriti prije instalacije na brod.

Major changes in the hardware and software are to be approved before being installed on the vessel.