



Potvrda br.  
Certificate No.

03-001800/031503

## POTVRDA O TIPNOM ODOBRENJU TYPE APPROVAL CERTIFICATE

Potvrđuje se da ovaj proizvod udovoljava Pravilima za klasifikaciju brodova, Dio 1. - Opći propisi, Odjeljak 3. - Tipno odobrenje proizvoda.  
This is to certify that this product complies with the Rules for the classification of ships, Part 1 - General requirements, Chapter 3 - Type approval of products.

TIP I OPIS PROIZVODA:  
TYPE AND DESCRIPTION OF PRODUCT:

**Marine Propulsion Engine Remote Control System**

**Series 9000**

PROIZVOĐAČ:  
MANUFACTURER:

**ZF Padova S.r.l.**  
Via Penghe, 48  
35030 CASELLE DI SELVAZZANO (PD)

*Italy*

PROIZVOD UDOVOLJAVA SLIJEDEĆIM PRAVILIMA/PROPISIMA:  
THE PRODUCT MEETS FOLLOWING RULES/REGULATIONS:

**Hrvatski registar brodova:**      **Pravila za klasifikaciju brodova,  
Dio 9. – Strojevi, Dio 13. – Automatizacija**

*Croatian Register of Shipping:*      *Rules for the classification of ships,  
Part 9. – Machinery, 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:      **2025-02-07**  
APPROVAL IS VALID UNTIL:

Mjesto i datum:      Split, 2021-02-17  
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:**  
*DETAILED PRODUCT DESCRIPTION:*

**Sustav daljinskog upravljanja brojem okretaja motora te stanjem kopče s više upravljačkih mjesta (do 5 pozicija).**  
*Remote control system for engine throttles and gears from multiple stations (up to 5 stations).*

91100-91105 – Micro Commander Systems	(mehaničko upravljanje brzinom i kopčom) (mechanically actuated throttles and gears)
91000-92212 – Clear Command Systems	(mehaničko/elektroničko upravljanje brzinom i kopčom) (mechanically/electronically actuated throttles, gears and trolling)
95250-95602 – Clear Command Systems	(posebna izvedba za mehaničko upravljanje brzinom) (special models with mechanically actuated throttles)
96150-96602 – Clear Command Systems	(posebna izvedba za elektroničko upravljanje brzinom) (special models with mechanically actuated throttles)
400 ch, MC2000 ch	Control Head Types
9000 Series Micro/Clear Command Processor Station Expander	

**PODRUČJE PRIMJENE / POSEBNI GRANIČNI UVJETI:**  
*APPLICATION / LIMITATIONS:*

**Rekreacijska plovila i manji brodovi do 90m duljine s dvostrukim sustavom poriva.**  
**Odobrenje vrijedi za brodove kojima se dodjeljuje klasa automatizacije: AUT 1, AUT 2 i AUT 3.**  
*Pleasure crafts and smaller commercial vessels up to 90m in length with dual propulsion.*  
*Approval also valid for ships to be granted with class notations: AUT 1, AUT 2 and AUT 3.*

**DOKUMENTACIJA ZA TIPNO ODOBRENJE:**  
*TYPE APPROVAL DOCUMENTATION:*

- Operative Manuals MM9000 & MM9110,
- ZF Padova S.r.l. – 9000 Series, MAR CONTROL SYSTEMS Drawing3340\_050\_239\_DES001, dated 08-09-16,
- ZF Quality Technical Specifications – QTS 006, dated 21-03-14,
- Environmental Test Plan, Models 91102 and 92214, Rev. B.2, dated 17-09-2003,
- CE Mark and EMC Test Plan, Models 9110 and 9221, Rev. B.1, dated 02-05-2003,
- Garwood Laboratories, Inc. – Environmental Test Report No. R25748 Rev.N/C, dated 28-10-2003,
- Garwood Laboratories, Inc. – Environmental Test Report No. R25748 Rev.B, dated 16-09-2005,
- ACME Testing Co. – EMC Test Report 2003035, dated 04-05-2003,
- ZF Marine Electronics, LLC – Qualitative Failure Analysis ENG-127, dated 24-07-2002,
- ACME Testing Co. – Compass Safe Distance Testing Report 2004091, dated 19-08-2004.
- Underwriters Laboratories Inc. – Ignition Protection Test Report MQ1216, dated 31-03-2004.

**OZNAČAVANJE PROIZVODA:**  
*MARKING OF PRODUCT:*

**U skladu s IEC60945 – Označavanje i identifikacija (Naziv proizvođača i tip proizvoda, serijski broj, datum proizvodnje, sigurna udaljenost od magnetskog kompasa, napon napajanja, programska verzija....)**  
*In accordance with IEC60945 – Marking and identification (The Manufacturer and Type Designation of the product, serial number, date of manufacture, safe distance to magnetic compass, supply voltage, software version...).*

**UVJETI ZA CERTIFIKACIJU:**  
*CONDITIONS FOR CERTIFICATION:*

**Za vrijeme pregleda, nakon instalacije potrebno je provjeriti ispravnost konfiguracije i postavki za svaku primopredaju u nazočnosti Registra.**  
**Programske promjene treba zapisati za sve vrijeme upotrebe sustava na brodu. Zapis o programskim promjenama treba dostaviti HRB-u na odobrenje prije primjene.**

**NAPOMENA:**

**Sustav upravljanja sa samo jednom porivnom jedinicom može se prihvatiti jedino u kombinaciji s posebnim back-up sustavom upravljanja odobrenog tipa.**

*Correct configuration and set up for each delivery to be tested during commissioning, after installation, under the supervision of a Society Surveyor.*

*All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to CRS for evaluation and approval before being installed.*

**NOTE:**

*The control for propulsion engine, with single engine application, is acceptable in combination with an additional back-up approved means for independent operation.*