

TYPE APPROVAL CERTIFICATE

Certificate No.

: HMB06078-AC002

Initial Approval: 7th December, 2016

Product

: Digital Speed Governor

Manufacturer

: Heinzmann GmbH & Co. KG

Am Haselbach 1, D-79677 Schonau, Germany

Product Description: Type: XIOS UC1

Modular and flexible engine controller for combustion engines and

expansion of I/O capacity

See Appendix 1 "

- Approval Condition: 1. This approval is granted on the basis of the test reports and the app<mark>rov</mark>ed documentation.
 - 2. The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.
 - 3. Individual Product Certification is not required.

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 6th December, 2021 Issued at Busan, Korea on 7th December, 2016

OREAN REGISTER OF SHIPPING

General Manager of Marine & Ocean Equipment Team

Note: 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.

2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.

3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.

4. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with regulations or standards as amended.

Appendix 1

Product Description and/or Approval Condition

Certificate No: HMB06078-AC002 Date of Issue:7th December, 2016

A. Product Description;

- 1. Power supply : 18 32 VDC
- 2. Components
- Mainboard MC, Expansion board MD, Extension boards MA1... MA9
- 3. Programming options - CoDeSys, MĀTLAB™
- 4. Software versions
 Application Standard 00.00.02

- Application Standard 00.00.02
 Application Standard with Modbus 00.60.02
 Application Ship 00.64.02
 Application Generator 00.03.02
 Application Generator with Modbus 00.63.02
 Application Master 00.60.02
 Application Master/Slave with Modbus 00.66.02
- B. Documentation;
- 1. Document & Drawing
 Drawing No. 620-00-181-04 dated 02.10.2015
 Instruction manual UC 14 001-e/11-15
- 2. Test Reports
- TUV Test Report No. 32927-60907-02 (Ed. 1) dated 20 Oct. 2015 TUV Test Report No. 60907-1300032927-1 (Ed. 3) dated 21 Jan. 2016 e&c testlab Test Report No. 15PBI010875-02 dated 03-02-2016

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