



Marine & Offshore

Certificate number: 53587/A0 BV

File number: AP4950 Product code: 4431H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Heinzmann GmbH & Co. KG

Schönau (Schwarzwald) - GERMANY

for the type of product

INTERNAL COMBUSTION ENGINE CONTROL UNITS

MVC01-20

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 12 Feb 2026

For Bureau Veritas Marine & Offshore, At BV HAMBURG, on 12 Feb 2021,

Hoepho

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The MVC01-20 is a control unit on four stroke diesel engines or on diesel part of dual fuel engines up to twenty injectors in multi engine applications.

1.1 - Main characteristic:

Processor: Motorola 68332

Power supply: 24V DC Inputs: 11x digital

4x analogue 5x temperature

3x speed sensor; 1x frequency

Outputs: 6x digital

2x analogue 20x injectors

Communication: 2x CAN
Housing: Aluminium
IP rating: IP65
SW version: 37.50.06

2. DOCUMENTS AND DRAWINGS:

- Manual: MV 09 001-e dated 06-11
- Housing: 620-00-147-00 dated 06.10.2010
- 320-90-242-00a dated 09.12.2010
- VA-TL005 Rev. 3 dated 11.03.2011; VA-TL013 Rev. 1 dated 06.01.2012

3. TEST REPORTS:

- KRIWAN: 110446_01_G dated 29/Aug/2011; 110522_02_H dated 06/Oct/2011
- TÜV SÜD: 32927-39520-01 dated 2018-08-20
- Performance tests signed on 19.Mrz.2019

4. APPLICATION / LIMITATION:

- 4.1 Bureau Veritas Rules and Regulations for the Classification of Steel Ships
- 4.2 Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 Bureau Veritas Environmental Category, EC Code: 33
- 4.4 Documents relating to each application are to be submitted to the Society's examination prior fitting on board.
- 4.5 Only Hardware and Firmware successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.
- 4.6 Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category III Equipment.
- 4.7 Equipment covered by this Type Approval certificate can be installed on ships contracted for construction before 1 January 2022. On or after this date of 1 January 2022, equipment is to comply with IACS UR E10 Rev. 7.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The above mentioned products are to be supplied by **Heinzmann GmbH & Co. KG** in compliance with the type described in this certificate and in compliance with the requirements of Bureau Veritas Rules for the Classification of Steel Ships.
- 5.2 This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.
- 5.3 **Heinzmann GmbH & Co. KG** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

Heinzmann GmbH & Co. KG Am Haselbach 1 79677 Schönau Germany

6. MARKING OF PRODUCT:

- Maker's name or trademark
- Equipment type or model identification
- Date of manufacture and/or serial number
- The version of software element shall be either marked on the unit or displayed on command in the connected automation system.

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7. OTHERS:
7.1 - It is the responsibility of **Heinzmann GmbH & Co. KG** to inform shipbuilders or their sub-contractors of the proper dequipment and the conditions of this approval.

*** END OF CERTIFICATE ***