Certificate No: HMB02586-OD003

Type Approval Certificate



[Oil Mist Detectors]

Initial Approval 15 December 2008

Manufacturer Schaller Automation Industrielle Automationstechnik GmbH & Co. KG

Industriering 14, D-66440 Blieskastel, Germany

Product Description Type: VISATRON Type VN 115/87plus, VN 115/87plus EX,

VN 116/87plus, VN 215/87plus

" See Appendix 1"

Approval Condition See Appendix 1 "

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.

Pt. 5, Ch. 2, Art. 203 & Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships and IACS UR M67

This Certificate is valid until 1 April 2028 Issued at Busan, Korea on 5 April 2023



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No(ME23013478741) and certificate No.(HMB02586-OD003).



KOREAN REGISTER

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

Certificate No: HMB02586-OD003 Appendix 1

Product Description and/or Approval Condition

Date of Issue: 5 April 2023

A. Product Descriptions ;

1. Product Specification

1) Operating Voltage : $24V DC \pm 25\%$ Max. 2A Current Consumption 3) Fuse 2A semi time lag

: IP 54 4) System of Protection

5) Operating Temperature : 0 ~ 70°C 6) Ex-proof Type : II (2G) [Ex op is IIB T4 Gb] for VN115/87plus EX

Intended for

1) VN 115/87plus

- Basic design, suitable for the monitoring of trunk piston diesel engines with in-line and V cylinder arrangements, running at medium and high speed.

- In case of a high oil mist generation, damage detection via a header pipe sampling system without localization of damage point.

2) VN 116/87plus

- Design suitable for the monitoring of trunk piston diesel engines with in-line and V cylinder arrangements, running at medium and high speed.

- In case of a high oil mist generation, damage detection via a header pipe sampling system. Indication of the engine side containing the source of oil mist(left or right side of engine)

- Pipe sampling system is the same as in the VN 115. If a localization of occurring bearing damage in requested, the replacement of a VN 115 against a VN 116can be easily executed.

3) VN 215/87plus

- Design suitable for the monitoring of trunk piston and crosshead engines running at medium and low speed.

- Damage detection via an individual compartment suction pipe system, with indication of compartment containing the source of oil mist.

3. Documentation

- 1) Documents & Drawings

 - Operation Manual (Part No. 11078, Version 2.4) dated 03/2017
 Operation Manual (Part No. 180081, Version 1.3) dated 06/2016
 Operation Manual (Part No. 180062, Version 2.5) Page 78~82 dated 08/2017
 Software Release Note FB_8.2_27_V02
 DC0500073 02, DC070056 02, DC070023 02, 21012340.sch, 210145, 210651 ~ 210653, 210955 (5/5), 210956 (4/12 ~ 12/12), 210957 (4/10 ~ 10/10), DC180164_02, 050073 03, DC370736 03, DC3707400 03 050073_02, DC270736_02, DC270440_02
- 2) Test Reports
 CETECOM Test Report No. 4-2018-1-2/06 dated 2006-05-18
 - CETECOM Test Report No. 3-5679-1-1/08 dated 2008-10-01
 - CETECOM Test Report No. 4-2912-01-01/07 dated 2008-01-28

 - CETECOM Test Report No. 1-8082/14-01-03 dated 28.07.2014 CETECOM Test Report No. 1-8082/14-01-06 dated 10.09.2014 CETECOM Test Report No. 1-8082/14-01-04 dated 06.10.2014
 - CETECOM Test Report No. 1-8082/14-01-05-A dated 24.09.2014
 - CETECOM Test Report No. 1-8082/14-01-05-B dated 08.12.2014
 - GSSO_Test Report according to IACS UR M67 dated 2007, Feb.

 - OMD Function Test (M67) dated 09.09.2015
 OMD Function Test (M67 Rev. 2) dated 2017-01-10
 - OMD Function Test (M67 Rev. 2) dated 2017-08-07
 - SGS-TUV Saarland Forster Test Report No. 79917_05122019_VN87plus dated 06.12.2019
 - 3) Ex-proof Certificate
 - IBExU14ATEX1153 dated 05.08.2014

B. Approval Condition;

This approval is granted on the basis of the test reports and the approved documentation (IACS UR E10 Rev. 7).

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Product Description and/or Approval Condition

Date of Issue: 5 April 2023

2. Degree of protection is to be complied with Rule Pt.6 Ch.1 Sec. 2 201.2. (5).

- 3. The product or packing is to be marked with the manufacturer name and type designation on a suitable position.
- 4. Individual Product Certification is not required.
- 5. Explosion-proof certification by a notified/recognized Certification Body is not covered by this certificate. Ratings and Special Condition for Safe Use in hazardous areas are to be obtained from the relevant valid Ex-Certificate.

< End of Certificate >



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