



CERTIFICATE NUMBER 20-2029714-PDA  
EFFECTIVE DATE 5 October 2020  
EXPIRATION DATE 4 October 2025  
ABS TECHNICAL OFFICE Singapore Engineering Services

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## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**SCHALLER AUTOMATION GMBH & CO. KG**

located at

**INDUSTRIERING 14, D-66440 BLIESKASTEL, GERMANY**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Oil Mist Detector**

**Model VN 301 plus, VN 301 plus Ex**

This Product Design Assessment (PDA) Certificate remains valid until 04 October 2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

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Manoraaju, Engineer/ Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## SCHALLER AUTOMATION GMBH & CO. KG

INDUSTRIERING 14

D-66440 BLIESKASTEL

Germany

Telephone: 49- (0) 6842-508-218

Fax: 49- (0) 6842-508-260

Email: Jochen.bock@schaller.de

Web: www.schaller.de

**Tier: 3 - Type Approved, unit certification not required**

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**Product:** Oil Mist Detector

**Model:** VN 301 plus, VN 301 plus Ex

**Intended Service:**

Monitoring of oil mist concentration in crankcases of diesel/combustion engines and alerting of high concentration.

### Description:

Indication of high oil mist concentration in entire crankcase section or other engine locations.

### Rating:

Power Supply: 24 V DC +/- 25%, max. 3 A.

Degree of Protection: IP 65.

Max. Air Consumption: 0.1 m<sup>3</sup>/h at 4 - 12 bar.

### Service Restriction:

- 1) Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
- 2) The vacuum in the engine crankcase, caused by the extraction of gases, is not to exceed 2.5 mbar.

### Comments:

- 1) Each particular application is to be specifically approved in conjunction with the relevant engine type and installation.
- 2) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 3) ATEX certified equipment is not to be installed in hazardous areas on U.S. vessels unless it can be proven to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S. Coast Guard.

### Notes/Drawing/Documentation:

Document No. 2019\_08\_30\_Release\_1, Revision: -, Pages: 2

Document No. 2017\_09\_08\_Release\_1, Revision: -, Pages: 7

Document No. 1000MHz-6000MHz\_VN301plus EMC Test Report, Revision: -, Pages: 16

Document No. 150kHz-1000MHz\_VN301plus EMC Test Report, Revision: -, Pages: 27

Document No. 180072 Operation Manual VN301plus 01-2020 Version1 Operation Manual, Revision: -, Pages: 42

Document No. VN301plus BV M67 Test Witness Report, Revision: -, Pages: 4

Document No. 2013\_11\_Manual\_VN301plus, Revision: 10, Pages: 1

Document No. GSSO-Test acc. UR-M67, Revision: 0, Pages: 1

Document No. Agenda for Type app. Test, Revision: 0, Pages: 1

Document No. 1-4083-11-01-03, Test Report CETECOM, Revision: 0, Pages: 1

Document No. 1-4083-11-1-05, Test report CETECOM, Revision: 0, Pages: 1

Document No. 1-4083/11-01-02, Test Report CETECOM, Revision: 0, Pages: 1

Document No. 1-5141-12-01-02, Vibrat. Test, update, Revision: 0, Pages: 1

Document No. 1-5141-12-01-03, EMC-Test update, Revision: 0, Pages: 1

Document No. 1000006, VN301+ sensor electronic, Revision: 004, Pages: 1

Document No. 1000032, Emitter board VN301plus, Revision: 003, Pages: 1

Document No. 1000048, VN301+Ex sensor electronic, Revision: 003, Pages: 1

Document No. 11 ATEX E 175, EC-Type Exam. Certificate, Revision: 0, Pages: 1

Document No. 12/20035, LR-Certificate for VN301plus/Ex, Revision: 0, Pages: 1

Document No. 160041-2014-AQ, ISO 9001:2008 Certificate, Revision: 0, Pages: 1

Document No. 180405, Sensor Unit Material Listing, Revision: 003, Pages: 02

Document No. 210970, Circuit Diagr. Connection board, Revision: 007, Pages: 1

Document No. 210971, Circuit Diagr. CPU board, Revision: 007, Pages: 1

Document No. 31027/A0, BV-Certificate for VN301plus/Ex, Revision: 0, Pages: 1

Document No. 328-12-47, CCR-Certificate for VN301plus/Ex, Revision: 0, Pages: 1

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D-66440 BLIESKASTEL

Germany

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Document No. 37909-12HH , GL-Certificate for VN301plus/Ex, Revision: 0, Pages: 1

Document No. 7070-11, Cable Type test report, Revision: 0, Pages: 1

Document No. DC180401, Dim.Drawing VN301plus Sensor , Revision: 004, Pages: 02

Document No. DC180403 , Dim.Drawing VN301plus CPU, Revision: 002, Pages: 02

Document No. ELE024412XG/001, RINA-Certificate for VN301plus/Ex, Revision: 0, Pages: 1

Document No. HT2V, Datasheet Grivory, Revision: 0, Pages: 1

Document No. IBExU13ATEX , Product Quality Ass. Not., Revision: 0, Pages:1

Document No. L45493, Datasheet LEONI Cable, Revision: 0, Pages: 03

Document No. VA\_7.3\_04e, Quality ass. meas. for software, Revision: V03,Pages: 1

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 04/Oct/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

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**STANDARDS**

**ABS Rules:**

ABS Rules for Conditions of Classification (2020) 1-1-4/7.7, 1-1-A3 and 1-1-A4, which covers the following :  
2020 Rules for Building and Classing Marine Vessels: 4-2-1/7.2, 4-2-1-A3, 4-6-5/13.1, 4-8-3/1.7, 4-8-3/1.11, 4-8-3/1.13, 4-8-3/1.17, 4-8-3/13, 4-9-6/Table 1A, 4-9-6/Table 1B, 4-9-9/13, 5C-8-A7/3.5, 5C-13-10/3.1.13

**National:**

NA

**International:**

IACS UR E10 (Rev. 7, Oct 2018)

M67 (Rev. 2, Feb 2015)

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA