




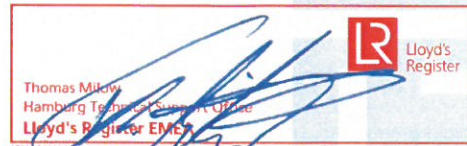
Lloyd's
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Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER	Schaller Automation Industrielle Automationstechnik GmbH & Co. KG Industriering 14 66440 Blieskastel Germany
DESCRIPTION	Oil Mist Detectors for Diesel- and Gas Engines
TYPE	VN2020 VN2020 EX  II (2G) [Ex op is IIB T4 Gb] +5 °C ≤ Ta ≤ +70 °C Software Version: V1.00
APPLICATION	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3 and ENV4 as defined in Lloyd's Register Type Approval System, Test Specification Number 1 - 2019. Application is only use for "General Power Distribution Zones".
ADDITIONAL TESTS	Enclosure test: IP 54
STANDARD	Manufacturer's specification IACS UR M67 2005 / Rev. 2 on February 2015
OTHER CONDITIONS	The suitability of the installation of the Oil Mist Detector is to be demonstrated in accordance with IACS UR M10 latest version for each type of engine. VN2020 EX is suitable for use in ATEX Zone 1 and Zone 2.
Certificate No.	19/20049
Issue Date	19. July 2019
Expiry Date	18. July 2024
Sheet	1 of 2



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The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

The Design Appraisal Document No. HTS/ETS 38502-19 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	19/20049
Issue Date	19. July 2019
Expiry Date	18. July 2024
Sheet	2 of 2

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LR031.1.2016.06

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Design Appraisal Document

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Date
19 July 2019

Please quote this reference number on all future communications
HPC1962050/38502-19/TM

**THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2017
ISSUED TO: SCHALLER AUTOMATION
INDUSTRIELLE AUTOMATIONSTECHNIK GMBH & CO.KG
FOR: OIL MIST DETECTOR
TYP: VN2020
TYPE APPROVAL CERTIFICATE NO. 19/20049**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System Procedure TA14 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Unnumbered	Application Checklist – Appendix to Form 2502TA	07.05.2019
HPC 1962050/ 38491-19/TM	Production Quality Assessment Form	23.05.2019
160041-2014-AQ-GER-DAkks	ISO 9001:2015	14.08.2017
Unnumbered	Function Test IACS UR_M67 Rev.2	23.05.2019
Unnumbered	Technical Data of VN2020	04/2019
183000 Vers. 1.0	Operation Manual	04/2019
Unnumbered Vers. 1.3	Datasheet SFH 4855	29.05.2018
81570 Rev. 1.7	Datasheet BPW20RF	11.08.2011
Unnumbered Rev. 13	Datasheet MPX5100/MPXV5100	05/2010
Unnumbered	Datasheet 3A Series	10/2017
Unnumbered	Release Note Firmware VN2020	04.02.2019
VA_7.3_004e_V05	Quality Assurance Measures for the Generation of Software	07.03.2018
Unnumbered	Prüfablauf VN2020	18.04.2019

TEST REPORTS

1-7830/19-01-04	Test Report EMC - CTC advanced GmbH	20.02.2019
1-7830/19-01-05	Test Report Environment - CTC advanced GmbH	20.03.2019
IBExU19ATEX1048	EU-Type Examination Certificate	18.04.2019
IECEX IBE 19.0010	IECEX Certificate of Conformity	17.04.2019

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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DRAWINGS

Unnumbered		Mechanical dimensions of VN2020	04/2019
260064	001	VN2020 Sendeplatine	14.01.2019
1000194	004	Visatron VN2020 CPU Board	03.01.2019
1000196	003	Visatron VN2020 Terminal Box PCB	29.01.2019
1000198	003	Visatron VN2020 Display PCB	14.01.2019



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Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Part 3

Oil Mist Detectors

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
<p>Schaller Automation Industrielle Automationstechnik GmbH & Co. KG, Industriering 14, 66440 Blieskastel, Germany.</p>	<p>Oil Mist Detector for Diesel Engines Type: VN2020 VN2020 EX II (2G) [Ex op is IIB T4 Gb] +5 °C ≤ Ta ≤ +70 °C</p>	<p>Software Version: V1.00</p>	<p>ENV 1, ENV 2, ENV3, ENV4, (2019) Application is only use for "General Power Distribution Zones".</p>	<p>Expires: 18. July 2024 Manufacturer's Standard IACS UR M67 2005 / Rev. 2 on February 2015 The suitability of the installation of the Oil Mist Detector is to be demonstrated in accordance with IACS UR M10 latest version for each type of engine. VN2020 EX is suitable for use in ATEX Zone 1 and Zone 2.</p>	<p>19/20049</p>