

# 國驗船中心

## CR Classification Society

Certificate No. 851-19-014

Date

July 16, 2019

### 型式認可證書 TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been approved by CR Classification Society in accordance with the requirements given in Part VIII of CR Rules for the construction and classification of steel ships 2019 and IACS UR M67 Rev.2, Feb. 2015 as an approved type for use in ships classed or intended to be classed with the Society.

Manufacturer

: Schaller Automation Industrielle

Automationstechnik GmbH & Co. KG

Approved Product(s): Oil Mist Detectors

Model Name

: Oil Mist Detector for Diesel and Gas Engines:

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**VISATRON VN2020** 

**VISATRON VN2020 EX** 

This certificate is valid until

July 15, 2024

**CHIH-WEN CHENG** 

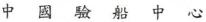
中國驗船中心 總驗船師

Chief Surveyor

CR Classification Society

This certificate evidences that the type of the products of the Manufacturer has been assessed to be in compliance with the specified CR Rules or Guidelines and to be capable of providing the listed products. This Certificate may be cancelled by CR Classification Society if the applicant makes any changes or modifications relevant to the approval, which have not been notified to, and agreed in writing with the Society. Any person not a party to the contract pursuant to which this document is delivered may not assert a claim against CR Classification Society for any liability arising out of errors or omissions which may contained in said documents, or for errors of judgment, fault or negligence committed by personnel of the Society.

Please refer to the CR website for the latest status of this approval: www.crclass.org/aw0/aw0.htm



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### Name of Manufacturer:

Schaller Automation Industrielle Automationstechnik GmbH & Co. KG

#### Address of Manufacturer:

Industriering 14 D-66440 Blieskastel Germany

### **Product Specification:**

#### 1. VISATRON VN2020/VISATRON VN2020 EX:

Power supply	18 Volts – 31.2 Volts DC, max. 2A	
Nominal voltage	24 Volts DC	
Relay outputs	2 x 'High Oil Mist Alarm' 1 x 'Ready' 1 x 'Oil Mist Pre-Alarm' (max. 60 Volts AC/DC, 1A)	
Cable entry	2 x M25 (8-16mm), 1x M20 (5-13mm)	
Communication interface to monitoring device	3 wire RS485, galvanically isolated (CAN open, galvanically isolated)	
Operating temperature	+5 - +70°C	
Storage temperature	-25 - +80 ° C	
Max. vibrations	5Hz – 25Hz: 1,6mm peak 25Hz – 300Hz: 40m/s2 peak	
Relative humidity	up to 95%	
Protection class	IP54	

(See next page for further details regarding the approval.)

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Additional specification for VISATRON VN2020 EX:

ATEX	II (2G) [Ex op is IIB T4 Gb] $+5^{\circ}$ C $\leq$ Ta $\leq$ $+70^{\circ}$ C	
IECEx	[Ex op is IIB T4 Gb] $+5^{\circ}$ C $\leq$ Ta $\leq$ $+70^{\circ}$ C	

#### Related Documents & Remarks:

- Documents:
  - IACS UR M67 test report :VN2020 Asien Klassen CCS-KR-CCR
  - ii · Dimension drawing
  - iii 、 Characteristics
  - iv . Manual:
    - 183000 Manual VN2020-EX-V1.0
  - Data sheet:
    - Infrared Emitter SFH 4855\_EN a.
    - Photodiode BPW20RF b.
    - Pressure Sensor MPX5100
    - Thermal Link XG Series d.
  - vi · Circuit diagram:
    - 260064 01 VN2020 IR TransmitterSchalt-Bestueckungsplan
    - b. 1000198\_03 - Visatron-VN2020 Display - Schalt-Bestucckungsplan
    - 1000194\_04 VN2020 CPU Platine Schalt-Bestucckungsplan-none3d 1000196\_03 VN2020 Terminal Box Schalt-Bestucckungsplan
    - d.
  - vii · Release notes:
    - $20190204\_FB\_8.2\_027\_Release\_Notes\_FW\_VN2020$ a.
    - VA\_7.3\_004e\_Quality Assurance Measures for the Generation of Software b.
  - viii · EMC Vibration Test IP-Code
    - 1-7830\_19-01-04 a.
    - 1-7830\_19-01-05 b.
  - ATEX and IECEx
    - ATEX191048\_engl\_pc a.
    - IECEx\_IBE\_19.0010\_0 b.
  - Inspection plan
    - inspection plan\_V02
- Photographic records:
  - Calibration and measuring equipment:
    - 660127-633 scale gravimetric method
    - b. 660127-633
    - 660360-250 pump 1000ml
    - 660360-250
    - 660360-449 pump 1000ml e.
    - 660360-449 f.
  - Exposed to water vapour: ii ·
    - 1 exposed to water vapour a.
    - 2 exposed to water vapour b.
    - 3 exposed to water vapour

(See next page for further details regarding the approval.)

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iii . Humidity and temperature:

a. 660208-719(JPG)

b. 660208-719(PDF)

iv . Static and dynamic inclinations

a. 1 static and dynamic inclinations

b. 2 static and dynamic inclinations

v · 01 clogging of suction pipe

vi · 01 Splash oil 55 degree

vii · 03 Splash Oil

viii · filters - gravimetric method

ix · filters 2 - gravimetric method

x · Kracht Zahnrad Pumpen KF25RF2D15

xi · Lable pump KF25RF2D15

xii · Manual VN2020-EX-V1.0 Page 29

xiii · Pressure 8bar

xiv > pump 1000ml 660360-250

xv · pump 1000ml 660360-449

xvi · scale - gravimetric method-660127-633

xvii · Shell Mysella S5 N40 SAE40

xviii · test chamber volume

xix · VA\_7.6\_001e\_Calibration and measuring equipment

xx · Versuchsbericht\_MALVERN\_13102016\_Dr. Horst Br nnet

#### Periodical assessment:

The intermediate audit is to be carried out within 3 months before or after the second anniversary date or within 3 months before or after the third anniversary date of the certificate. The intermediate audit will include, but not be limited to, confirmation of operation of the manufacturer's quality system, compliance of production procedures with the technical documents accepted at the time of type approval, purchase control of raw materials, components and parts, use of survey marks and approved product logos, languages required to be used in nameplates and operation instructions, product quality feedback. In case where the intermediate audit items mentioned above are not practical, considerations will be given by the Society on a case-by-case basis.

- The End -