



# NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE FOR CRANKCASE OIL MIST DETECTION ARRANGEMENTS

Certificate No. TA20158M

**This is to certify** that the undernoted products have been approved in accordance with the requirements specified in Chapter 6, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Manufacturer:	<b>Schaller Automation Industrielle Automationstechnik GmbH &amp; Co. KG</b>
Place of Manufacturing:	<b>Industriering 14, D-66440 Blieskastel, Germany</b>
Product description:	<b>Oil Mist Detection System</b>
Model:	<b>VISATRON VN301plus / VN301plusEX</b>
Approval No.:	<b>15A013</b>
Valid until:	<b>23 April 2025</b>

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 24 April 2020.

T. Shimada  
General Manager  
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

**Specification & documents:**

1. Particulars: Power supply: 24V DC (18 - 31.2V DC), max. 3A  
Intrinsically safe: II -/2G Ex op is IIB T4 -/Gb
2. Measuring range & alarm setting: 0.75 - 2.0mg/liter & approx. 2.5mg/liter
3. Detecting points: up to 20 sensors (10 sensors per central unit)
4. Components and reference drawings:

Component	Type	Drawing
Central Unit	VN301 plus	Dim. Drawing DC180403 02
Sensor Unit	VN301 plus / EX	Dim. Drawing DC180401 02 Dim. Drawing DC180405 02

5. Documentation and Test Reports:

Operation Manual (October 2014)

Circuit diagram No.210970, 210971, 1000006, 1000032, 1000048

Process-Instruction: Software

Test report CETECOM No.1-4083/11-01-02 (March 2012)

Test report CETECOM No.1-4083/11-01-03 (March 2012)

Test report CETECOM No.1-4083/11-01-05 (March 2012)

Test report CETECOM No.1-5141/12-01-03 (July 2012)

Test report CETECOM No.1-5141/12-01-02 (August 2012)

Test report GSSO (March 2012)

EMC Test report (6 December 2019)

EC-Type Examination Certificate No.BVS 11 ATEX E 175 (February 2012)

6. Software (Version No. as of the date of issuance):

Central Unit Firmware Version 1.18

Sensor Unit Firmware Version 1.16

- To be continued -

**Test items & approval conditions:**

1. Test items: Applied testing items are marked with X in accordance with the Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use as amended by IACS UR M67 and UR E10.

ENVIRONMENTAL TESTS (IACS UR E10 Rev.7 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ± 4g × 1.5 hours)		X
Inclination test		--
Cold test (Temperature 5°C × 2 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval conditions:

- 1) The product is not allowed to be installed in the bridge and on open decks.
- 2) Where there are multi engine installations, each engine is to be provided with oil mist detection / monitoring and a dedicated alarm.