



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR CRANKCASE OIL MIST DETECTION ARRANGEMENTS

Certificate No. TA15193M

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:	Schaller Automation Industrielle Automationstechnik GmbH & Co. KG
Place of Manufacturing:	D-66440 Blieskastel / Germany / Industriering 14
Product description:	Oil mist detection system
Model:	VISATRON VN301plus / VN301plusEX
Approval No.:	15A013
Valid until:	23 April 2020

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

Issued at Tokyo on 24 April 2015.

Y. Shibata
General Manager
Machinery Department

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

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Attached sheet -1/2 to the Certificate No. TA15193M

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)

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

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

VN301plus Central Unit Firmware Version 1.2

VN301plus / EX Sensor Unit Firmware Version 1.1

- 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, UR E10 and UR E22 as applicable.

ENVIRONMENTAL TESTS		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.

- The End -