



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR CRANKCASE OIL MIST DETECTION ARRANGEMENTS

Certificate No. TA18544M

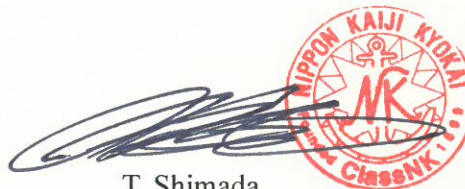
This is to certify that the undernoted products have been approved in accordance with the requirements specified in Chapter 6, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” and the relevant Society’s Rules.

This certificate is issued to

Manufacturer:	Schaller Automation Industrielle Automationstechnik GmbH & Co. KG
Place of Manufacturing:	Industriering 14, D-66440 Blieskastel, Saarland, Germany
Product description:	Oil Mist Detector System for Crankcase
Model:	VN87plus series
Approval No.:	08A042
Valid until:	16 November 2023

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

Issued at Tokyo on 17 November 2018.



T. Shimada
General Manager
Machinery Department

Note: .1. 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. TA18544M

Specification & documents:

1. Particulars: Power supply: 24V DC (18-31.2V)
Ex-Type: II (2G) [Ex op is IIB T4 Gb] for VN115/87plus EX
2. Detecting points: 10 tubes for VN215/87plus or 12 points for VN115/87plus (EX) and VN116/87plus
3. Components and reference drawings:

Component	Type	Drawing
Oil mist detector	VN115/87plus	Dimension Dwg. DC050073
Oil mist detector	VN116/87plus	Dimension Dwg. DC070056
Oil mist detector	VN215/87plus	Dimension Dwg. DC070023
Oil mist detector	VN115/87plus EX	Dimension Dwg. DC180164
Monitoring device	Remote Indicator II	Dimension Dwg. DC150998
Monitoring device	ReCon DS23	Dimension Dwg. DC271670
Siphon	Pipe Siphon	Dimension Dwg. DC271656
Siphon block	VN180	-
Siphon block	VN280	Dwg. DC150934

4. Documentation and Test Reports:

- Operation Manual No.11078 Rev.2.0 (01-2013)
- Operation Manual Part-No.180081 Ver.1.1 (09-2015)
- Operation Manual Part-No.180062 Ver.2.5 (08-2017)
- Circuit Diag. No.21012340, 210145, 210651, 210652, 210653, 210955, 210956, 210957
- CETECOM test report No.4-2912-01-01/07 (01-2008)
- CETECOM test report No.4-2018-1-2/06 (05-2006)
- CETECOM test report No.3-5679-1-1/08 (10-2008)
- CETECOM test report No.1-8082/14-01-06
- CETECOM test report No.1-8082/14-01-05-A
- CETECOM test report No.1-8082/14-01-04
- CETECOM test report No.1-8082/14-01-03
- GSSO test report per IACS UR M67 (02-2007)
- OMD Function test (09-2015)
- OMD Function test IACS UR M67 Rev.2 (09-2015)

- LAPP product information of internal flame retardant cable
- Documents for software quality control
- Document for software modification (Release Notes)

- 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 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 ± 2 × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration 3-25Hz: ± 1.6mm, 25-100Hz: ± 4.0g)		X
Inclination test		--
Cold test		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 condition:

- 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 -