

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.

Manufacturer **motcom GmbH**

Address Kurt-Schumacher-Str. 28-30, Saarbrücken, 66130, Germany

Type Oil Mist Detectors

Description Single Compartment Oil Mist Online Detection System SiCOMS® /OCom consisting of OCom Evaluator OCMEV and up to 16 sensors (Components marked with * are available as EX- variants) see Appendix for further details

Trade Name SISE/OC with Splash Oil Guard (SOG)

Application Marine applications for use in environmental categories ENV1, ENV2, ENV3 and ENV4 (applicable for sensors and evaluation unit) as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2018.

Specified Standard Manufacturer's Specification.
IACS UR M67 2005 / Rev.1 2006 / Corr.1 2007 / Rev.2 Feb. 2015 "Type Testing Procedure for Crankcase Oil Mist Detection and Alarm Equipment"
IACS unified requirements E10 (Rev.8 Feb 2021)

Ratings Refer to Appendix of the Certificate.

Additional Tests Degrees of Protection by enclosure: IP65 (Evaluator and Connectors)
Safe Type Equipment: Oil Mist Sensor with SOG type SiSe/OC **EX

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Certificate No. "BVS 13 ATEX E 116 X" (issued by DEKRA)

Other Conditions

Final functional arrangements are to comply with appropriate Lloyd's Register Rules and will be subject of the Plan Approval process, if applicable. The suitability of the installation of the Oil Mist Detector is to be demonstrated for each type of engine. According to the requirements of IACS UR M67 an alarm shall be raised for an oil mist concentration of 2.5 mg/l. Therefore, the alarm level should be adjusted between level 1...7 only.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: LR2003393TA

The Design Appraisal Document TSO-24-013604/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Appendix

DESCRIPTION Single Compartment Oil Mist Online Detection System SiCOMS® /OCom consisting of OCom Evaluator OCMEV and up to 16 sensors
(Components marked with * are available as EX- variants)

TYPES

Components:	Description:
OCom Evaluator (OCMEV) <i>Firmware: V2.01 B1007 / 21.03.2023</i>	<ul style="list-style-type: none">- Connect up to 16 sensors via redundant serial bus system- 24 VDC (+30/-25%); max. 1,5A- 3 isolated relay contacts with wire-break protection 33kOhm(“System Ready”, “Main Alarm”, “Pre-Alarm”)- RS485, Modbus, CAN Bus (optional)- Sensitivity Level 1...10 adjustable
OCom Remote Monitoring Unit <i>Firmware: V2.00 B1002 / 16.04.2024</i>	<ul style="list-style-type: none">- Interface RS485, Modbus, CAN Bus
OCom Sensor: SiSe/OC 20(*) SiSe/OC 16(*) SiSe/OC 14(*) <i>Firmware: V3.53 / 23.08.2022</i>	<ul style="list-style-type: none">- Finger-shaped optical sensor with system redundancy for HFO + Diesel and for Gas + Dual Fuel Engines- Reaction time <1s
OCom SOG 65 for SiSe/OC 20(*) OCom SOG 53 for SiSe/OC 16(*) OCom SOG 24 for SiSe/OC 14(*)	<ul style="list-style-type: none">- Splash-Oil-Guard prevents the sensor from being soiled with splash oil, but allows oil mist and water vapour to enter
OCom Diffusor for SOG 24, 53 or 65	<ul style="list-style-type: none">- Add-on for SOG sensors which are installed near or in a section with high splash oil concentration