DNV·GL

Certificate No:
MEDB00005CK

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Fixed oxygen analysis and gas detection equipment

with type designation(s)
SUPREMA Touch

Issued to
MSA Europe GmbH
Rapperswil-Jona, Switzerland

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.54. SOLAS 74 as amended, Regulation II-2/4 & VI/3 and FSS Code 15

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-10-20**.

Issued at **Hamburg** on **2019-10-21**

DNV GL local station:
Magdeburg

Approval Engineer:
Dariusz Lesniewski

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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Product description

The SUPREMA is a scalable gas warning controller for use with oxygen detectors

System main technical data:
Power supply: 24V DC (external line filter to be used)
Number of inputs: 1-256
Number of relay outputs: 0-512
Number of analog outputs (0-20mA): 0-256
Display (touch): 320x240 pixel, colour, function keys
Interfaces: 3xRS232, 2xCAN-Bus, Ethernet, USB
Housing: 19" rack

The controller may consist of the following components:

P/N	Name	Description
10166236	Rack (w/o PS, w MDO)	Main Rack
10166235	Rack (w/o PS, w/o MDO)	Satellite Rack
10050712	SUPREMA MIB20	Interconnection board (Backplane)
10104584	SUPREMA MST20	System Terminal Module
10101581	SUPREMA MCP20	Central Processing Module
10109638	SUPREMA MDO20	Display and Operation Module
10110482	SUPREMA MDC20	Display Connection Module
10083804	SUPREMA MGO20	General Output Module
10021676	SUPREMA MRC10-TS	Relay Connection Module (Rail)
10026178	SUPREMA FRC-40	Flat Ribbon Cable
10029124	SUPREMA FRC-40	Flat Ribbon Cable (Shielded)
10018946	SUPREMA MRO10-8	Relay Output Module (8 Outputs, 3A)
10021674	SUPREMA MRO10-8-TS	Relay Output Module (8 Outputs, 3A, Rail)
10021430	SUPREMA MRO10-16-TS	Relay Output Module (8 redundant Outputs, 3A, Rail)
10112807	SUPREMA MRO20-8-TS	Relay Output Module (8 Outputs, 5A, Rail)
10112805	SUPREMA MRO20-16-TS	Relay Output Module (8 redundant Outputs, 5A, Rail)
10115115	SUPREMA MRO20-8-TS SSR Relay (rail)	Relay Output Module (8 Outputs, SSR, Rail)
10105281	SUPREMA MRO10-16-TS SSR	Relay Output Module (8 redundant Outputs, SSR, Rail)
10052880	SUPREMA MRD10	Relay Dummy Module
10151719	SUPREMA MAI30	Analog Input Module
10151720	SUPREMA MAR30	Analog Input Redundancy Module
10151731	SUPREMA MHS30	HART Support Module
10170299	SUPREMA MGI30	General Input Module
10170300	SUPREMA MGR30	General Input Redundancy Module
10015759	SUPREMA MAT10	Analog Terminals Module
10022311	SUPREMA MAT10-TS	Analog Terminals Module (Rail)
10019468	SUPREMA MUT10	Universal Terminal Module
10026772	SUPREMA MGT-40-TS	General Terminal Module (Rail)
10030262	SUPREMA Sensor Simulation Module	Sensor Simulation Module (4..20mA)

	4-20mA	
10191490	SUPREMA Sensor Simulation Module Switch	Sensor Simulation Module (Switch)
10102071	SUPREMA MAO 20	Module Analog Output
10122578	SUPREMA MBC20-Modbus	Modbus TCP/RTU Gateway
10105279	SUPREMA MBT20	Module Bus Terminal
10179005	SUPREMA microSD card	micro SD card

Definition of the location classes and additional tests with reference to relevant standards:
Temperature:
TEM-B: Tested at +5°C to +70°C *(ref. IEC 60092-504 (2016) table 1 item 6-7)*
Vibration:
VIB-A: Tested at ± 1mm/±0.7g (*ref. IEC 60092-504 (2016) table 1 item 10)*
EMC:
EMC-B: Bridge and open deck zone *(ref. IEC 60092-504 (2016) table 1 item 19-20)*
Enclosure:
IP20: *(ref. IEC 60092-504 (2016) table 1 item 12)*
Compass safe distance:
Standard compass: 200 cm / Stearing compass: 150 cm *(ref. IEC 60945 4th edition (2002) item 11.2)*

Place of manufacture
MSA Produktion Deutschland GmbH
Thiemannstr. 1
12059 Berlin, Germany

Application/Limitation
24V DC power supply via external line filter FN 6060-6/06

Type Examination documentation

Tests carried out
IEC 60092-504 (2016)
IEC 60533 (2015)
EN 50104 (2010)

Marking of product
For identification to this type examination certificate the products shall be marked with:
- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (see front page)