

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	Green Instruments A/S
Address	Erhvervsparken 29, Brønderslev, 9700, Denmark
Place of Production	Green Instruments A/S Erhvervsparken 29, Brønderslev, 9700, Denmark
Type	Gas analyser units
Description	The Oxygen Analyzer type G36 and G36p continuously measures the content of oxygen with concentrations from 0 % to 21.0 %, using a zirconia sensor. The Oxygen Analyzer can be used to measure the content of oxygen in in stack gas or in the nitrogen or flue gas based inert gas, and to monitor oxygen level in engine room compartments or room for inert gas system or accommodation area. G36 Oxygen Analyzer (standalone) G36p Oxygen Analyzer (panel mounted) Software version: 2
Trade Name	G36
Application	Marine, Offshore and Industrial applications for use in environmental categories ENV1, ENV2 and ENV3 (G36p type only) as defined in Lloyd's Register Type Approval System, Test Specification Number 1 – July 2002.

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Specified Standard	Manufacturer's specification IACS E10 Rev. 7 / 2018
Ratings	Power supply: G36:100-230 VAC (50/60 Hz) G36p: 24 VDC Measuring range: 0.0 - 21.0% O ₂ Linearity / Accuracy: 0.5% of measuring range Repeatability: 0.1% of measuring range Response time: 20% of total measured value @ < 10 s 90% of total measured value @ < 45 s
Additional Tests	G36 (Stand-alone): Dry Heat Test (55 °C / 16 h) Shock Test (40 g half sinus / 10 ms) acc. to IEC 60068-2-27 Vibration Test (5-200 Hz / displacement 2 mm < 13.2 Hz / acceleration 0.7 g > 13,2 Hz) acc. to IEC 60068-2-6 G36p (panel mounted): Enclosure protection (IP 55 / from front side) acc. to IEC 60529
Other Conditions	The G36 Oxygen Analyzer shall be installed in safe, non-hazardous area, and in area with no high concentration of methane. The connection cables for the main supply, relays, interface, and analog output signals should be shielded or provided with equivalent protection. Final functional arrangements are to comply with appropriate Lloyd's Register Rules and will be subject of the Plan Approval process. The examination of software aspects is restricted to functionality demonstrated in the performance test.

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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.

The Design Appraisal Document HTS/ETS 40777-21/MK/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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