DNV·GL

Certificate No:
MEDB0000598

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fixed oxygen analysis and gas detection equipment

with type designation(s)
G36 Oxygen Analyzer (standalone), G36p Oxygen Analyzer (panel mounted)

Issued to
Green Instruments A/S
Brønderslev, Nordjylland, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
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 **2024-06-02**.
Issued at **Høvik** on **2019-06-03**

DNV GL local station:
Denmark CMC

Approval Engineer:
Frode Nygård

Notified Body
No.: **0575**

for **DNV GL AS**
Digitally Signed By: Trond Sjåvåg
Location: DNV GL Høvik, Norway
on behalf of

Roald Vårheim
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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

Product description

The G36/G36p Oxygen Analyzer is designed to measure (by inertization) the content of oxygen with concentration from 0% up to 21.0%.
The G36/G36p Oxygen Analyzer can be used to measure the content of oxygen in stack gas or in the nitrogen or flue gas based inert gas, and continuous monitoring of oxygen level in the atmosphere in engine room compartments or room for inert gas systems or accommodation area.

G36 is a standalone version, while G36p is a version prepared to be front panel mounted.
Software version: 2.

Application/Limitation

The analyzer shall be installed in safe area, and in area with no high concentration of methane.

Enclosure protection degree:

G36 Oxygen Analyzer (standalone)	IP67
G36p Oxygen Analyzer (panel mounted)	IP55

For compliance with EMC class B (bridge and open deck locations), the connection cables for the main supply, relays, interface and analog output signals should be shielded or provide equivalent protection.

Type Examination documentation

Performance Test Report G36/G36p, Green Instruments May 2009
Environmental Test Report No.2008-2631, Danfoss 2008-09-10
EMC Test Report No.2008-08-22-G1, Jens-EMC 2008-10-22
Environmental Test Report No.200901677, Danfoss 2009-06-02/03/04
EMC Test Report No.2009-05-18, Jens-EMC 2009-06-27

Performance Test Report G36 Oxygen Analyzer, Ver.2.0, June 2013
Manual Oxygen Analyzer G36, No. 01245, Rev.2.1x, July 2013
Manual Oxygen Analyzer G36p, No. 01381, Rev.2.1x, July 2013
G36 Oxygen Analyzer Specification, Ver.1 June 2009
G36p Oxygen Analyzer Specification, Ver.1 June 2009.

Marine tests of G36 and G36p, Report No. P17-0136 dated 2017-12-28
Review of IEC 60092-504:2016 & IEC 60533:2015 in relation to the G36 and G36p dated Sep. 2017.

Tests carried out

EN 60945:2002 including IEC 60945 Corrigendum 1 (2008)
IEC 60092-504:2016
IEC 60533:2015
EN 50104:2010 (safe area)

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 (wheel mark), followed by
    - identification number of the NoBo involved in production control (MED D)
    - the year the mark is affixed.
    - Example: 0575/2018