

EC TYPE EXAMINATION CERTIFICATE

Certificate No:
MED-B-9299
Item No:
A.1/3.54
Job Id:
344.1-001997-3

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2012/32/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL under the authority of the Government of the Kingdom 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, Denmark

is found to comply with the requirements in the following Regulations/Standards:

Annex A.1, item No. A.1/3.54 and Annex B, Module B in the Directive. 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.

Høvik, 2014-09-26
for DNV GL



This Certificate is valid until
2019-09-25


Notified Body No.: **0575**

DNV GL local office:
Aalborg



for

Marianne Strand Valderhaug
Head of Department


Andrzej Gdaniec
Surveyor



The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

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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.

Tests carried out

EN 60945:2002 including IEC 60945 Corrigendum 1 (2008)
IEC 60092-504:2001 including IEC 60092-504 Corrigendum 1 (2011)
IEC 60533:1999
EN 50104:2010 (safe area)

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

- Module D: The quality system for production and testing shall be approved by the Notified Body.
- Module E: The quality system for inspection and testing shall be approved by the Notified Body.
- Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a of Certificate Conformity.