



DET NORSKE VERITAS

EC-TYPE EXAMINATION CERTIFICATE

[2] **EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC**

[3] EC-Type Examination Certificate Number: **DNV 10 ATEX 74401X** Rev. 1

[4] Equipment or Protective System: **LaserGas III**

[5] Applicant – Manufacturer or Authorized representative: **Neo Monitors AS**

[6] Address: **Solheimveien 62A
1473 Lørenskog, Norway**

[7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.


The examination and test results are recorded in confidential reports listed in section 14.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN 60079-0: 2012, EN 60079-1: 2007, EN 60079-31:2009 and EN 60079-28:2007**

[10] If the sign “X” is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.

[12] The marking of the equipment or protective system shall include the following:

 **II 2 G** Ex code, see schedule
II 2 D

Høvik, 2014-06-24
for Det Norske Veritas AS

Arne Hortman
Certification Manager



Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The digitally signed and electronically distributed document is the original and valid certificate. Ref.: www.dnv.com/digitalsignatures

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE No.:** DNV 10 ATEX 74401X

Rev. 1

Certificate History

Revision	Description	Report no.	Issue date
-	Original certificate	2010-3237	2010-05-27
1	Updated harmonised standards	D0001144	2014-06-24

[15] Description of Equipment or Protective System

The LaserGas III Monitor is an optical instrument based on transmitting infrared laser light from a transmitter unit on one side of the stack to a receiver unit in the diametrically opposite side of the stack. The measurement principle is called infrared single-line absorption spectroscopy.

Inside Ex d enclosure for transmitter and receiver there is an optical instrument providing Ex [op is] beam into zone 1 (covered by certificate DNV 09 ATEX 57893 and DNV 12 ATEX 14659). Enclosure is fitted with glass lens in the lid, and permanently connected cable. Mounting according to manufacturers instructions must be followed to ensure protection of lens.

Type Identification	Ex code	Ambient Temperature
LaserGas III	Ex d [op is] IIC T4 Gb Ex tb IIIC T78°C Db	-20°C ≤ Ta ≤ +55°C
LaserGas III Ext	Ex d [op is] IIC T4 Gb Ex tb IIIC T88°C Db	-40°C ≤ Ta ≤ +65°C

Electrical Data

U=18 to 32 V DC, P ≤ 10W

Degrees of protection (IP Code)

IP65

[16] **Project No.:** D0001144

Descriptive Documents

Number	Title	Rev.	Date
15190B	Transmitter identity plate Ex-d, LaserGas III	B	2014-06-23
15205B	Receiver identity plate Ex-d, LaserGas III	B	2014-06-23
15261A	Transmitter identity plate Ex-d, LaserGas III Ext	A	2014-06-23
15260A	Receiver identity plate Ex-d, LaserGas III Ext	A	2014-06-23
15081	Ex d specifications LaserGas III	7 pages	-
			2014-06-24

[17] Special Conditions for Safe Use

- The fasteners used on the Ex-d enclosure must be the type specified by the manufacturer: M5x10 DIN912 A4-80.
- Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in tables 1 and 2 of EN 60079-1.

[18] Essential Health and Safety Requirements

See part 9 of this certificate

END OF CERTIFICATE

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 300.000. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.