



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-2007-OSL-ATEX-9012X** Rev. 2

[4] Equipment or Protective System: **Personal Toxic Gas Monitor ToxiRAE 3 model PGM-1700**

[5] Applicant – Manufacturer or Authorized representative: **Rae Systems**

[6] Address: **3775 North First Street, San Jose CA95134, USA**

[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 60079-11:2012 and EN 60079-26:2007**

[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 1 G Ex ia IIC T4 Ga -20°C ≤ Tamb ≤ +60°C**

Høvik, 2014-12-19
for Det Norske Veritas AS

Asle Kaastad
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-2007-OSL-ATEX-9012X

Rev. 2

Certificate History

Revision	Description	Report no.	Issue date
1	Original certificate	2007-3419	2007-10-30
2	Update to the latest edition of standards with modified vibrator motor component and EMC component. Added a new plastic back cover material RTP 399 X 123980	D0001325	2014-12-19

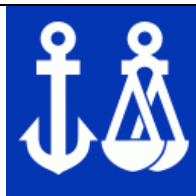
[15] Description of Equipment or Protective System

ToxiRAE 3 is a personal single gas monitor for continuously display of toxic gas concentrations, STEL, TWA and Peak values as well as high, low STEL and TWA alarms. The physical dimensions are 85mm x 54 x 20mm without clip. The weight is 100g. It is small handheld and battery powered, housed in a dark conductive plastic back, stainless steel/PC front partially covered with a soft thermoplastic electrically conductive material. Audible and visual alarm indicators are included. The visual alarm comprises a Red/Green LED bar visual from the top. An imbalanced motor produces a vibration alert when in alarm mode. An infrared communication port allows galvanic isolated data transfer between the handheld instrument and a PC.

Nomenclature for ToxiRAE3 type for each sensor type:

Sensor type	ToxiRAE3 Model No.
CO	PGM1700 CO
H ₂ S	PGM1700 H2S
NH ₃	PGM1700 NH3
CO	PGM1700 CO2000
Cl ₂	PGM1700 CL2
ClO ₂	PGM1700 CL02
HCN	PGM1700 HCN
H ₂ S	PGM1700 H2S1000
NO	PGM1700 NO
NO ₂	PGM1700 NO2
O ₂	PGM1700 O2
PH ₃	PGM1700 PH3
SO ₂	PGM1700 SO2
HF	PGM1700 HF
HCl	PGM1700 HCL
CH ₃ SH	PGM1700 CH3SH
ETO	PGM1700 ETO
O ₃	PGM1700 O3

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[16] **Project No.:** PRJC-502631-2014-PRC-NOR

Descriptive Documents

Number	Title	Rev.	Date
904-E900-102.04	Scheduled document list	9	2014-10-29

[17] **Special Conditions for Safe Use**

It is a condition of safe use that the apparatus must be powered by non rechargeable cells of the following type only. EVE ER14335 Lithium-thionyl Chloride, Size 2/3AA, 3.6 Volts

[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.