



# IECEx Certificate of Conformity

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**  
**IEC Certification Scheme for Explosive Atmospheres**  
for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEx DNV 07.0004X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2007-10-30** Page 1 of 4

Applicant: **Rae Systems Inc**  
3775 North First Street  
San Jose CA95134  
United States of America

Electrical Apparatus: **Personal Toxic Gas Monitor: ToxiRAE 3 model PGM-1700**  
Optional accessory:

Type of Protection: **Ex ia IIC T4**

Marking: **Ex ia IIC T4**  
**-20C ≤ Tamb ≤ +60C**

Approved for issue on behalf of the IECEx  
Certification Body:

Steinar Kristensen

Position:

Certification Manager

Signature:  
(for printed version)

Steinar Kristensen

Date:

31/10-2007

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**DNV**  
Det Norske Veritas (DNV) Certification AS  
Veritasveien 1  
1322 Hovik  
Norway





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Manufacturer: **Rae Systems Inc.**  
3775 North First Street  
San Jose CA95134  
**United States of America**

Manufacturing location(s):  
**RAE Systems (Shanghai)  
Inc**  
No. 788 Zhaoxian Road,  
JiaDing District,  
Shanghai 201821  
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacture's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

## STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

**IEC 60079-0 : 2004** Electrical apparatus for explosive gas atmospheres - Part 0: General requirements  
Edition: 4.0

**IEC 60079-11 : 2006** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"  
Edition: 5

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

### Test Report:

NO/DNV/ExTR07.0005/00

### Quality Assessment Report:

NO/DNV/QAR06.0003/00  
NO/DNV/QAR06.0004/00



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

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 an 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.

### CONDITIONS OF CERTIFICATION: YES as shown below:

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



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## EQUIPMENT(continued):

Nomenclature for ToxiRAE 3 type for each sensor type:

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