

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

Certificate No.: **IECEX TSA 06.0036X** Issue No.: **0**

Status: **Current**

Date of Issue: **2006-10-18** Page 1 of 4

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

Electrical Apparatus: **BadgeRAE Model PGM10xx and ToxiRAE II Model PGM11xx Single Gas Detectors**
 Optional accessory:

Type of Protection: **Ex ia**

Marking: **RAE PGM-1XXX**
Ex ia IIC T4
IECEX TSA 06.0036X
S/N XXX-XXXXXX

Approved for issue on behalf of the IECEx
 Certification Body:

Ujen Singh

Position:

Quality and Certification Manager

Signature:
 (for printed version)

Date:

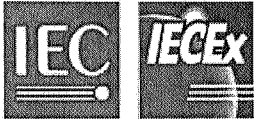
1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

TestSafe Australia

919 Londonderry Road
 Londonderry NSW 2753
 Australia





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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)
788 Zhaoxian Road
Jia Ding, Shanghai
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 Edition: 4.0 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-11 : 1999 Edition: 4 | Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'I' |

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:

AU/TSA/ExTR06.0040/00

Quality Assessment Report:

NO/DNV/QAR06.0004/00



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The BadgeRAE Model PGM10xx Single Gas Detector and ToxiRAE II Model PGM11xx Single Gas Detector are portable, battery operated, hand-held toxic gas detector. The hardware of these two models is identical. The difference is in the software. The gas sensing cells are of the electro-chemical type. The instrument is powered by a 2/3 AA lithium cell. The LCD display panel on the front displays the gas concentration readings or the alarm range. A push button allows users to select the information viewed on the LCD display. Audible and visual alarm indicators are located on the front of the apparatus, and an imbalanced motor produces a vibration alert when in alarm mode.

CONDITIONS OF CERTIFICATION: YES as shown below:

It is a condition of safe use that the lithium batteries of Tadiran TL5955R and EVE ER 14335 shall be used in the apparatus.



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Additional information:

The following documents were assessed in the course of preparing this Certificate. The documents listed give a full and correct specification of the safety aspects of the electrical equipment.

| Document No. | Document Title | Issue | Date |
|---------------------------|---|-------|------------|
| 045-1010-SAA Sheet 1 of 2 | PGM1XXX (Analog) (<i>Schematic</i>) | C | 2006/07/31 |
| 045-1010-SAA Sheet 2 of 2 | PGM1XXX (Digital) (<i>Schematic</i>) | C | 2006/07/31 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Drill Drawing | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Top Layer | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Top Overlayer | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Bottom Layer | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Bottom Overlayer | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Midlayer1 | 2 | 2002/08/08 |
| 045-1000-000 | BadgeRAE (PGM-1XXX) PCB Internal Plane1 | 2 | 2002/08/08 |
| 045-SAA-BOM-1 2 sheets | PGM-1010&PGM-1020 PCB BOM | A | 2006/05/23 |
| 045-ASSM-001 | PGM1XXX Enclosure | A | 2006/03/03 |
| 045-4006-IEC | BadgeRAE / ToxiRAE II Label | A | 2006/07/31 |