

# **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 SIR 15.0039X

Issue No: 4

Certificate history:

Status:

Current

Issue No. 4 (2019-01-07) Issue No. 3 (2018-12-03)

Date of Issue:

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Issue No. 2 (2018-05-07)

2019-01-07

Issue No. 1 (2016-05-31) Issue No. 0 (2015-09-21)

Applicant:

RAE Systems, Inc., A Honeywell Company

1349 Moffet Park Drive

Sunnyvale CA 94089

United States of America

Equipment:

PGM-26XX 4-Gas Portable Gas Monitor

Optional accessory:

Type of Protection:

Intrinsically Safe and Flameproof

Marking:

Ex ia I Ma

Ex ia d IIC T4 Gb

Approved for issue on behalf of the IECEx

C Ellaby

Certification Body:

Position:

**Deputy 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:

SIRA Certification Service **CSA Group** Unit 6, Hawarden Industrial Park Hawarden, Deeside, CH5 3US United Kingdom





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Manufacturer:

RAE Systems, Inc., A Honeywell Company

1349 Moffet Park Drive

Sunnyvale CA 94089

United States of America

Additional Manufacturing location(s):

RAE Systems (Shanghai) INC.

No.990 E. Huiwang Road JIADING DISTRICT

Shanghai 201815

China

RAE Systems, Inc., A Honeywell Company

12220, Rojas Drive

El Paso

TX 79936

United States of America

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 manufacturer'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 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: 2011

Explosive atmospheres - Part 0: General requirements

Edition:6.0

IEC 60079-1: 2014-06

Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-11 : 2011

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

Edition:6.0

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:

GB/SIR/ExTR15.0234/00

GB/SIR/ExTR16.0120/00

GB/SIR/ExTR18.0066/00

GB/SIR/ExTR18.0071/00

GB/SIR/ExTR18.0235/00

Quality Assessment Report:

NO/PRE/QAR16,0005/01

NO/PRE/QAR16.0006/01

NO/PRE/QAR17.0018/00



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Schedule

#### **EQUIPMENT:**

Equipment and systems covered by this certificate are as follows:

The PGM26XX is a portable, battery-powered, four-gas monitor that is housed in a plastic enclosure with additional stainless steel and rubber for protection. It is designed to be hand-held or attached to the person by means of a belt clip. The equipment includes two toxic sensors, one LEL sensor and one oxygen sensor, it also incorporates a liquid crystal display as well as an alarm with visual, audible and vibrating modes.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the Annexe.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

This issue, Issue 4, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. Variation to include an alternative wireless board NB-IoT (wireless module); Represented by drawings M03-1112-SCH, M03-1102-000 and M03-1112-BOM to show the new schematic and new PCB track layout.

#### Annex:

IECEx SIR 15.0039X issue 4 Annexe .pdf

Annexe to: IEC Ex SIR 15.0039X Issue 4

Applicant: RAE Systems, Inc., A Honeywell Company

Apparatus: PGM-26XX 4-Gas Portable Gas Monitor



# **Equipment:**

The PGM26XX is a portable, battery-powered, four-gas monitor that is housed in a plastic enclosure with additional stainless steel and rubber for protection. It is designed to be hand-held or attached to the person by means of a belt clip. The equipment includes two toxic sensors, one LEL sensor and one oxygen sensor, it also incorporates a liquid crystal display as well as an alarm with visual, audible and vibrating modes.

The equipment has an optional add-on modem that provides GPS (Mesh/WiFi/BLE) and also enables tracking of the device.

The PGM26XX has no electrical connections while in the hazardous area. It may be charged in the non-hazardous area only: Um = 6.0 Vdc, maximum charging current 1900 mA.

# **Specific Conditions of Use:**

 The PGM-26XX shall only be charged using a charger specifically supplied for use with the unit (for example part number 3A-066WPxx or 3A-401WP12, manufactured by ENG Electric), approved as SELV or Class 2 equipment against IEC 60950 or an equivalent IEC standard. The maximum voltage from the charger shall not exceed 6.0 Vdc.

Likewise, any data download device connected to the PGM-26XX shall also be approved SELV or Class 2 equipment.

### **Conditions of Manufacture:**

The PGM-26XX incorporates a flammable gas sensing head, certified under IECEx FTZU 14.0019U
(Group II) and IECEx DEK 15 0031U (Group I). It is therefore the responsibility of the RAE Systems to
continually monitor the status of the certifications associated with this device. RAE Systems shall
inform Sira of any modifications to the device that may impinge upon the explosion safety design of the
PGM-26XX.

### Full Certificate change history

**Issue 1** – this Issue introduced the following changes:

- 1. Introduction of a new LCD.
- 2. Change in status LEDs with the consequential addition of safety resistors and track layout changes.
- Specification of an additional manufacturer of the MESH module.
- 4. The QAR for Shanghai site was amended.

#### **Issue 2** – this Issue introduced the following change:

1. Introduction of revision to Wi-Fi (wireless module) board; Drawings M03-1012-SCH and MO3-1002-000 were revised to show the new schematic and new track layout.

### **Issue 3** – this Issue introduced the following changes:

- 1. The change of company name and address from RAE Systems, Inc. 3775 North First Street, San Jose, CS 95134, USA, to RAE Systems, Inc., A Honeywell Company, 1349 Moffet Park Drive, Sunnyvale, CA 94089, USA.
- The introduction of an additional manufacturing location, RAE Systems Inc, A Honeywell Company, 12220, Rojas Drive, El Paso, TX 79936, USA was recognised.

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3. The Quality Assessment Reports were updated to align with the current issuing Ex Certification Body.

Sira Certification Service

Unit 6 Hawarden Industrial Park, Hawarden, CH5 3US, United Kingdom

Tel: +44 (0) 1244 670900 Fax: +44 (0) 1244 681330 Email: <u>ukinfo@csagroup.org</u> Web: <u>www.csagroupuk.org</u>

Date: 07 January 2019

Annexe to: IEC Ex SIR 15.0039X Issue 4

Applicant: RAE Systems, Inc., A Honeywell Company

Apparatus: PGM-26XX 4-Gas Portable Gas Monitor



#### **Issue 4** – this Issue introduced the following change:

 Variation to include an alternative wireless board NB-IoT (wireless module); Represented by drawings M03-1112-SCH, M03-1102-000 and M03-1112-BOM to show the new schematic and new PCB track layout.

Date: 07 January 2019

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Form 9530 Issue 1

# **Sira Certification Service**

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