



# 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 SIR 18.0031

Issue No: 2

Certificate history:

Issue No. 2 (2018-11-01)

Status: **Current**

Issue No. 1 (2018-08-30)

Date of Issue: **2018-11-01**

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Issue No. 0 (2018-06-14)

Applicant: **RAE Systems, Inc.**  
A Honeywell Company  
1349 Moffett Park Drive  
Sunnyvale, CA 94089  
**United States of America**

Equipment: **BWC-1000, BWC-1001, BWC-1002, BWC-1003 and BWC-1004 Wireless IR to Bluetooth Transceiver**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia IIC T4 Ga  
Ta: -40°C to 55°C

Approved for issue on behalf of the IECEx  
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:  
(for printed version)



Date:

2018-11-01

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](http://www.iecex.com).

Certificate issued by:

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

**sira**  
CERTIFICATION





# IECEX Certificate of Conformity

Certificate No: IECEX SIR 18.0031

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Manufacturer: **RAE Systems, Inc.**  
A Honeywell Company  
1349 Moffett 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

**Honeywell Analytics Limited**  
Hatch Pond House  
4 Stinsford Road  
Nuffield Estate  
Poole  
Dorset BH17 0RZ  
United Kingdom

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 60079-11 : 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/ExTR18.0095/00

GB/SIR/ExTR18.0140/00

GB/SIR/ExTR18.0186/00

Quality Assessment Report:

GB/SIR/QAR11.0027/05

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 subject equipment is a small, self-contained, battery powered, wireless, infrared to Bluetooth transceiver that communicates with hand-held portable gas detection instruments. The existing handheld instruments were designed with infrared transceiver capabilities, using a tiny optical port on the lower rear of the housing. This assembly is designed to physically mate with the existing instruments so that the optical ports on both devices align, enabling infrared digital information exchange. The device performs translation of this data and is provided with a wireless Bluetooth RF transceiver to exchange digital signal data with other (unspecified) Bluetooth devices located within a limited range of < 10 meters.

Refer to the Annexe for additional information.

**SPECIFIC CONDITIONS OF USE: NO**



# IECEX Certificate of Conformity

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

This issue, Issue 2, recognises the following changes: refer to the certificate annexe to view a comprehensive history:

1. Introduction of alternative Honeywell Analytics Limited factory to the Manufacturer's Name and Address.

## Annex:

[IECEX SIR 18.0031 Issue 2 Annexe.pdf](#)

**Annexe to:** IECEx SIR 18.0031 Issue 2

**Applicant:** RAE Systems, Inc.  
A Honeywell Company



**Apparatus:** BWC-1000, BWC-1001, BWC-1002, BWC-1003 and BWC-1004 Wireless IR to Bluetooth Transceiver

## Equipment:

The subject equipment is a small, self-contained, battery powered, wireless, infrared to Bluetooth transceiver that communicates with hand-held portable gas detection instruments. The existing handheld instruments were designed with infrared transceiver capabilities, using a tiny optical port on the lower rear of the housing. This assembly is designed to physically mate with the existing instruments so that the optical ports on both devices align, enabling infrared digital information exchange. The device performs translation of this data and is provided with a wireless Bluetooth RF transceiver to exchange digital signal data with other (unspecified) Bluetooth devices located within a limited range of < 10 meters.

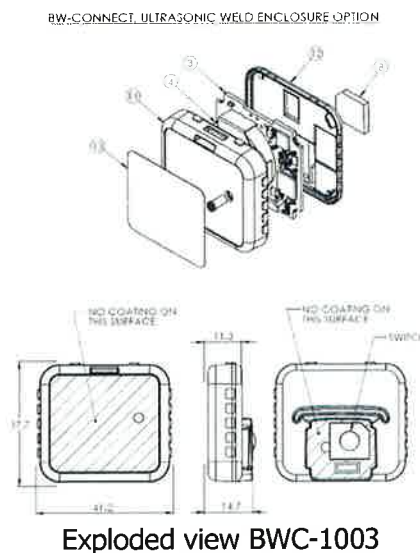
Several versions of this battery powered, self-contained device are available. One version utilizes an ultrasonically welded housing, and is designed to be disposable. The other version is provided with a two part housing that is held together with four M2 screws to facilitate battery replacement. Both of these variants are made available with, and without a momentary contact switch in the area where this device mounts to the "host" instrument.

All versions utilize a single 3V lithium manganese dioxide (Li/MnO<sub>2</sub>) coin cell primary type battery, with a diameter of approximately 24.5 mm, by 5 mm thick as the only energy source. There is no wiring to or from this device. A periodically blinking LED signal on the front of the device is the only visible indication that the device is functioning.

The equipment is intended to mount directly to the rear surface face of a portable hand-held gas detection instrument. The geometry of a male boss, moulded into the rear of the housing is intended to mate with the geometry of a female boss moulded into the rear of the gas detection instrument, securing it in place.

Model BWC-1000 is the same as above, but it has an alternate mounting base.

## Graphic Representation:



**Date:** 01 November 2018

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**Form 9530 Issue 1**

## Sira Certification Service

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

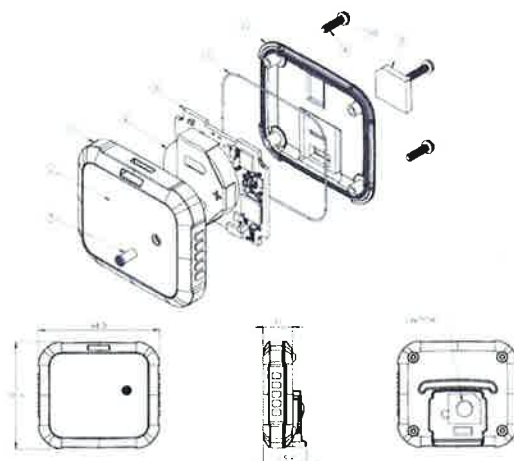
Tel: +44 (0) 1244 670900  
Fax: +44 (0) 1244 681330  
Email: [ukinfo@csagroup.org](mailto:ukinfo@csagroup.org)  
Web: [www.csagroupuk.org](http://www.csagroupuk.org)

**Annexe to:** IECEx SIR 18.0031 Issue 2

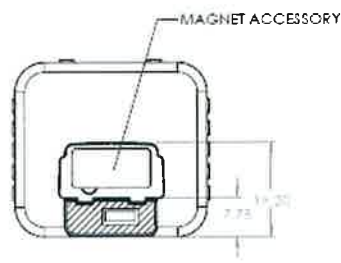
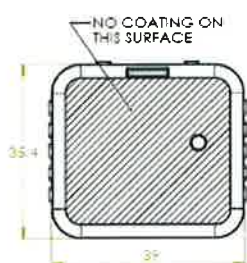
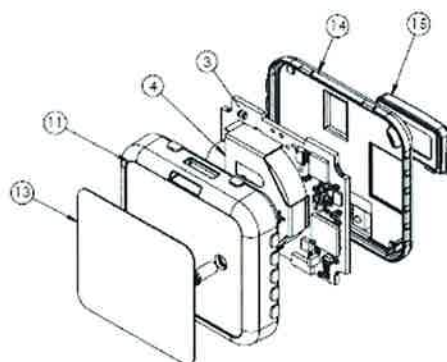
**Applicant:** RAE Systems, Inc.  
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**Apparatus:** BWC-1000, BWC-1001, BWC-1002, BWC-1003 and BWC-1004 Wireless IR to Bluetooth Transceiver



Exploded view – BWC 1002



Exploded view – BWC 1000

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**Form 9530 Issue 1**

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Hawarden, CH5 3US, United Kingdom

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**Annexe to:** IECEx SIR 18.0031 Issue 2

**Applicant:** RAE Systems, Inc.  
A Honeywell Company



**Apparatus:** BWC-1000, BWC-1001, BWC-1002, BWC-1003 and BWC-1004 Wireless IR to Bluetooth Transceiver

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MicroClip  
XT/XL/X3

Max XT II

Examples of subject equipment, mounted to hand-held gas detection instruments.

### **Specific Conditions of Use:**

None

### **Conditions of Manufacture:**

None

### **Full Certificate change history**

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

1. The introduction of an additional model BWC-1000, which includes alternative structure for mounting base. The Marking and Equipment Description were revised to reflect the new Model BWC-1000.

**Issue 2** – this Issue introduced the following changes:

1. Introduction of alternative Honeywell Analytics Limited factory to the Manufacturer's Name and Address.

**Date:** 01 November 2018

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**Form 9530 Issue 1**

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