



# 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 BAS 05.0038      issue No.:10      **Certificate history:**  
Status: **Current**      **Issue No. 10 (2008-8-6)**  
Date of Issue: **2008-08-06**      Page 1 of 4      **Issue No. 9 (2008-6-16)**  
                **Issue No. 8 (2008-4-4)**  
                **Issue No. 7 (2007-7-5)**  
                **Issue No. 6 (2006-12-20)**

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

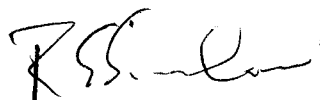
Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex Iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

*Approved for issue on behalf of the IECEx*      R S Sinclair  
*Certification Body:*

*Position:*      Managing Director

*Signature:*  
*(for printed version)*

---

6-8-08

*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:

**Baseefa**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-08-06

Issue No.: 10

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Manufacturing location(s):

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 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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEx ATR:  
UK/BAS/04/0202

File Reference:  
04/0202



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-08-06

Issue No.: 10

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-08-06

Issue No.: 10

Page 4 of 4

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

### Variation 10.1

To permit the use of an alternative rechargeable cell Sanyo Type UF553450Z. When this cell is used the apparatus marking is Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C).

ExTR: **GB/BAS/ExTR08.0128/00**

File Reference: **08/0305**



# 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 BAS 05.0038 issue No.:9  
Status: **Current**  
Date of Issue: **2008-06-16** Page 1 of 4

Certificate history:  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
Optional accessory:

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex Iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**


Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair

Position:

Managing Director

Signature:  
(for printed version)

  
18-6-08

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:

**Baseefa**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-06-16

Issue No.: 9

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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 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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-06-16

Issue No.: 9

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-06-16

Issue No.: 9

Page 4 of 4

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

### Variation 9.1

To permit the use of alternative encapsulants in the hybrids as listed on the appropriate parts lists, and to permit the introduction of a new drawing listing the possible model names.

ExTR: **GB/BAS/ExTR07.0191/00**

File Reference: **07/1070**





# 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 BAS 05.0038 issue No.:8  
Status: **Current**  
Date of Issue: **2008-04-04** Page 1 of 4

Certificate history:  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*


Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEx BAS 05.0038**  
**Ex Iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

*Approved for issue on behalf of the IECEx* R S Sinclair  
*Certification Body:*

*Position:* Managing Director

*Signature:*  
*(for printed version)*

  
\_\_\_\_\_  
4-4-06

*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:

**Baseefa**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-04-04

Issue No.: 8

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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 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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEx ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-04-04

Issue No.: 8

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2008-04-04

Issue No.: 8

Page 4 of 4

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

### Variation 8.1

To permit the use of an alternative rechargeable cell type ICP653450U.

When this cell is used, the marking becomes Ex iad IIC 170°C (T3) (-20°C ≤ Ta ≤ +65°C)

ExTR: **GB/BAS/08.0076/00**

File Reference: **08/0211**



# 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 BAS 05.0038 issue No.:7 History:  
Status: **Current** Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

Date of Issue: **2007-07-05** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
Optional accessory:


Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

Approved for issue on behalf of the IECEx Certification Body: R S Sinclair

Position: Managing Director

Signature:  
(for printed version)

  
\_\_\_\_\_  
11-7-07

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:

**Baseefa (2001) Ltd.**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2007-07-05

Issue No.: 7

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
UK/BAS/04/0202

File Reference:  
04/0202



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2007-07-05

Issue No.: 7

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2007-07-05

Issue No.: 7

Page 4 of 4

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

### Variation 1.1

To permit:

- The use of an alternative rechargeable battery as defined on the G. A.
- Minor changes to the oxygen and toxic i-modules
- Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR: **UK/BAS/05/0256** File Reference: **04/0202**

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEX ATR: **UK/BAS/05/0256/1** File Reference: **04/0202**

### Variation 3.1

To permit a change of encapsulant in the hybrid circuits.

IECEX ATR: **GB/BAS/ExTR06.0029/00** File Reference: **06/0285**

### Variation 4.1

To permit the use of alternative model names **Gas-Mate CR**, **Oxy-Mate CR** and **Toxi-Mate CR**, and to permit minor additions to the list of Oxygen or Toxic i-Modules which may be used.

IECEX ATR: **GB/BAS/ExTR06.0058/00** File Reference: **06/0425**

### Variation 5.1

To permit minor changes to drawings, the use of alternative sounders, and the use of an optional alternative CO<sub>2</sub> chemical i-module.

ExTR: **GB/BAS/ExTR06.0104/00** File Reference: **06/0673**

### Variation 6.1

To permit minor changes to the desktop charger units with part number C01940 and C01941.

### Variation 6.2

When only charging of the apparatus is required, the desktop charger part number C01941 may be replaced by any Crowcon charger with an output ( $U_m$ ) of 9V.

When both charging and data communication are required, only charger / interface part number C01940 must be used.

ExTR: **GB/BAS/ExTR06.0172/00** File Reference: **06/1022**

### Variation 7.1

To permit minor changes to circuits and various documents.

ExTR: **GB/BAS/ExTR06.0177/00** File Reference: **06/0781**





# 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 BAS 05.0038** Issue No.: **6**

Status: **Current**

Date of Issue: **2006-12-20** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**


*Approved for issue on behalf of the IECEx  
Certification Body:*

R S Sinclair

*Position:*

Managing Director

*Signature:  
(for printed version)*

  
20-12-06

*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:

**Baseefa (2001) Ltd.**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-12-20**

Issue No.: **6**

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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 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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 05.0038**

Date of Issue: **2006-12-20**

Issue No.: **6**

Page **3** of **4**

## Schedule

### **EQUIPMENT:**

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded. It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20. External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 05.0038**

Date of Issue: **2006-12-20**

Issue No.: **6**

Page **4** of **4**

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

### Variation 1.1

To permit:

- The use of an alternative rechargeable battery as defined on the G A
- Minor changes to the oxygen and toxic i-modules
- Various changes to drawings, which affect documentation but do not make any technical change.

IECEx ATR:  
**UK/BAS/05/0256**

File Reference:  
**04/0202**

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEx ATR:  
**UK/BAS/05/0256/1**

File Reference:  
**04/0202**

### Variation 3.1

To permit a change of encapsulant in the hybrid circuits.

IECEx ATR:  
**GB/BAS/ExTR06.0029/00**

File Reference:  
**06/0285**

### Variation 4.1

To permit the use of alternative model names **Gas-Mate CR, Oxy-Mate CR and Toxi-Mate CR**, and to permit minor additions to the list of Oxygen or Toxic i-Modules which may be used..

IECEx ATR:  
**GB/BAS/ExTR06.0058/00**

File Reference:  
**06/0425**

### Variation 5.1

To permit minor changes to drawings, the use of alternative sounders, and the use of an optional alternative CO<sub>2</sub> chemical i-module.

ExTR: **GB/BAS/ExTR06.0104/00**

File Reference: **06/0673**

### Variation 6.1

To permit minor changes to the desktop charger units with part number C01940 and C01941.

### Variation 6.2

When only charging of the apparatus is required, the desktop charger part number C01941 may be replaced by any Crowcon charger with an output ( $U_m$ ) of 9V.

When both charging and data communication are required, only charger / interface part number C01940 must be used.

ExTR: **GB/BAS/ExTR06.0172/00**

File Reference: **06/1022**



# 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 BAS 05.0038** Issue No.: **5**

Status: **Current**

Date of Issue: **2006-09-18** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
Optional accessory:

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair

Position:

Managing Director

Signature:  
(for printed version)



22/9/06

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:

**Baseefa (2001) Ltd.**

Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-09-18**

Issue No.: **5**

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2006-09-18

Issue No.: 5

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded. It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-09-18**

Issue No.: **5**

Page **4** of **4**

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

### Variation 1.1

To permit:

- a) The use of an alternative rechargeable battery as defined on the G A
- b) Minor changes to the oxygen and toxic i-modules
- c) Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR:  
**UK/BAS/05/0256**

File Reference:  
**04/0202**

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEX ATR:  
**UK/BAS/05/0256/1**

File Reference:  
**04/0202**

### Variation 3.1

To permit a change of encapsulant in the hybrid circuits.

IECEX ATR:  
**GB/BAS/ExTR06.0029/00**

File Reference:  
**06/0285**

### Variation 4.1

To permit the use of alternative model names **Gas-Mate CR**, **Oxy-Mate CR** and **Toxi-Mate CR**, and to permit minor additions to the list of Oxygen or Toxic i-Modules which may be used..

IECEX ATR:  
**GB/BAS/ExTR06.0058/00**

File Reference:  
**06/0425**

### Variation 5.1

To permit minor changes to drawings, the use of alternative sounders, and the use of an optional alternative CO<sub>2</sub> chemical i-module.

ExTR: **GB/BAS/ExTR06.0104/00**

File Reference: **06/0673**





# 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 BAS 05.0038** Issue No.: **4**  
Status: **Current**  
Date of Issue: **2006-07-13** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

*Approved for issue on behalf of the IECEx  
Certification Body:*

R S Sinclair

*Position:*

Managing Director

*Signature:  
(for printed version)*



13/7/6

*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:

**Baseefa (2001) Ltd.**

Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-07-13**

Issue No.: **4**

Page **2** of **4**

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-07-13**

Issue No.: **4**

Page **3** of **4**

## Schedule

### **EQUIPMENT:**

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-07-13**

Issue No.: **4**

Page **4** of **4**

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

### Variation 1.1

To permit:

- a) The use of an alternative rechargeable battery as defined on the G A
- b) Minor changes to the oxygen and toxic i-modules
- c) Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR:  
**UK/BAS/05/0256**

File Reference:  
**04/0202**

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEX ATR:  
**UK/BAS/05/0256/1**

File Reference:  
**04/0202**

### Variation 3.1

To permit a change of encapsulant in the hybrid circuits.

IECEX ATR:  
**GB/BAS/ExTR06.0029/00**

File Reference:  
**06/0285**

### Variation 4.1

To permit the use of alternative model names **Gas-Mate CR**, **Oxy-Mate CR** and **Toxi-Mate CR**, and to permit minor additions to the list of Oxygen or Toxic i-Modules which may be used..

IECEX ATR:  
**GB/BAS/ExTR06.0058/00**

File Reference:  
**06/0425**



# 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 BAS 05.0038** Issue No.: **3**

Status: **Current**

Date of Issue: **2006-04-26** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**


*Approved for issue on behalf of the IECEx  
Certification Body:*

R S Sinclair

*Position:*

Managing Director

*Signature:*  
*(for printed version)*

  
26-4-06

*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:

**Baseefa (2001) Ltd.**

Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-04-26**

Issue No.: **3**

Page **2** of **4**

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
**United Kingdom**

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2006-04-26

Issue No.: 3

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded. It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-04-26**

Issue No.: **3**

Page **4** of **4**

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

### Variation 1.1

To permit:

- a) The use of an alternative rechargeable battery as defined on the G A
- b) Minor changes to the oxygen and toxic i-modules
- c) Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR:  
**UK/BAS/05/0256**

File Reference:  
**04/0202**

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEX ATR:  
**UK/BAS/05/0256/1**

File Reference:  
**04/0202**

### Variation 3.1

To permit a change of encapsulant in the hybrid circuits.

IECEX ATR:  
**GB/BAS/ExTR06.0029/00**

File Reference:  
**06/0285**





# 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 BAS 05.0038**

Issue No.: **2**

Status: **Current**

Date of Issue: **2006-03-01**

Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
Optional accessory:

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**


Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair

Position:

Managing Director

Signature:  
(for printed version)



3/3/6

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:

**Baseefa (2001) Ltd.**  
Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-03-01**

Issue No.: **2**

Page **2** of **4**

Manufacturer: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2006-03-01

Issue No.: 2

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2006-03-01**

Issue No.: **2**

Page **4** of **4**

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

### Variation 1.1

To permit:

- a) The use of an alternative rechargeable battery as defined on the G A
- b) Minor changes to the oxygen and toxic i-modules
- c) Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR: <b>UK/BAS/05/0256</b>
-------------------------------------

File Reference: <b>04/0202</b>
-----------------------------------

### Variation 2.1

To permit various changes to documents and the use of an alternative sensor module known as 'dual toxic'.

IECEX ATR: <b>UK/BAS/05/0256/1</b>
---------------------------------------

File Reference: <b>04/0202</b>
-----------------------------------

Annexe:



# 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 BAS 05.0038** Issue No.: **1**

Status: **Current**

Date of Issue: **2005-06-27** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**

Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair

Position:

Managing Director

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:

**Baseefa (2001) Ltd.**

Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2005-06-27**

Issue No.: **1**

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
 2 Blacklands Way  
 Abingdon Business Park  
 Abingdon  
 Oxfordshire  
 OX14 1DY  
 United Kingdom

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
**UK/BAS/04/0202**

File Reference:  
**04/0202**



# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2005-06-27

Issue No.: 1

Page 3 of 4

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded.

It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2005-06-27**

Issue No.: **1**

Page **4** of **4**

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

### Variation 1.1

To permit:

- a) The use of an alternative rechargeable battery as defined on the G A
- b) Minor changes to the oxygen and toxic i-modules
- c) Various changes to drawings, which affect documentation but do not make any technical change.

IECEX ATR:  
**UK/BAS/05/0256**

File Reference:  
**04/0202**

Annexe:





# 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 BAS 05.0038** Issue No.: **0**

Status: **Current**

Date of Issue: **2005-05-04** Page 1 of 3

Applicant: **Crowcon Detection Instruments Ltd**  
2 Blacklands Way  
Abingdon Business Park  
Abingdon  
Oxfordshire  
OX14 1DY  
United Kingdom

Electrical Apparatus: **Gasman Flammable Gas Detector**  
*Optional accessory:*

Type of Protection: **Intrinsic safety, Flameproof**

Marking: **IECEX BAS 05.0038**  
**Ex iad IIC T4 (-20°C ≤ Ta ≤ +65°C)**


*Approved for issue on behalf of the IECEx  
Certification Body:*

R S Sinclair

*Position:*

Managing Director

*Signature:  
(for printed version)*

  
10.5.05

*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:

**Baseefa (2001) Ltd.**

Rockhead Business Park  
Staden Lane  
Buxton  
Derbyshire  
SK17 9RZ  
United Kingdom





# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2005-05-04

Issue No.: 0

Page 2 of 3

Manufacturer: **Crowcon Detection Instruments Ltd**  
 2 Blacklands Way  
 Abingdon Business Park  
 Abingdon  
 Oxfordshire  
 OX14 1DY  
 United Kingdom

Manufacturing location(s):

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:

<b>IEC 60079-0 : 2000</b> Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2001</b> Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures 'd'
<b>IEC 60079-11 : 1999</b> 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*

IECEX ATR:  
 UK/BAS/04/0202

File Reference:  
 04/0202



# IECEX Certificate of Conformity

Certificate No.: **IECEX BAS 05.0038**

Date of Issue: **2005-05-04**

Issue No.: **0**

Page **3** of **3**

## Schedule

### EQUIPMENT:

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

The Gasman Flammable Gas Detector is designed to detect the presence of flammable gas, give a visual indication of the concentration, and give audible and visual alarms if a preset level is exceeded. It comprises a rechargeable battery, a flammable gas sensor head, electronic circuits on printed circuit boards, a liquid crystal display, LED's and a piezo sounder, all contained in a plastic enclosure providing a degree of protection of at least IP20.

External contacts are provided for recharging, and for serial data communications.

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### Variation 0.1

The flammable gas sensor module is known as a flammable i-module. This variation permits the flammable i-module to be replaced by an oxygen i-module (for oxygen deficiency detection), or a toxic i-module. The permitted i-modules are listed in the User Manual provided by the manufacturer.

The apparatus is not designed for use in oxygen enriched atmospheres.

**CONDITIONS OF CERTIFICATION: NO**

Annexe: