



# 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.: 14

Status: **Current**

Date of Issue: **2014-11-04** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Certificate history:  
Issue No. 14 (2014-11-4)  
Issue No. 13 (2014-9-2)  
Issue No. 12 (2014-8-6)  
Issue No. 11 (2009-12-17)  
Issue No. 10 (2008-8-6)  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

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


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

Marking: **Ex ia d IIC T4 (-20°C ≤ Ta ≤ +65°C)**

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

Position: General Manager

Signature:  
(for printed version)

  
5 NOVEMBER 2014

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

Certificate issued by:

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





# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2014-11-04

Issue No.: 14

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Additional 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 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by 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**  
**GB/BAS/ExTR14.0249/00**  
**Gb/BAS/ExTR14.0324/00**

File Reference:  
**04/0202**  
**13/0719**  
**14/0615**



# IECEX Certificate of Conformity

Certificate No.: IECEX BAS 05.0038

Date of Issue: 2014-11-04

Issue No.: 14

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 flammable sensor used is either type VQ500 series by SGX Sensortech (IS) Ltd, to IECEX SIR 04.0014U, or 4P series by City Technology to IECEX SIR 04.0013U, with a Code of Ex d IIC Gb and a maximum permitted ambient temperature of +55°C. These sensors are certified to EN60079-0:2009 and EN60079-1:2007.

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: 2014-11-04

Issue No.: 14

Page 4 of 4

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

### Variation 14.1

To permit a minor change to the GASMAN Charger/Interface terminals not affecting the original assessment.

### Variation 14.2

To permit the addition of an alternative component certified Gas Sensor for the GASMAN Flammable:  
SGX Sensortech (S.A.) Micro-Pellistor MP-7217, MP-7218 and VQ548MP, covered by certificates IECEX ULD 14.0002U and  
DEMKO 14 ATEX 1266U to standards IEC 60079-0:2011 Ed 6 & IEC 60079-11:2011 Ed 6 and EN 60079-0:2012 Ed 6 &  
IEC 60079-11:2012 Ed 6 respectively.

ExTR: **GB/BAS/ExTR14.0324/00**

File Reference: **14/0615**



# 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.:13

Status: **Current**

Date of Issue: **2014-09-02** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Certificate history:  
Issue No. 13 (2014-9-2)  
Issue No. 12 (2014-8-6)  
Issue No. 11 (2009-12-17)  
Issue No. 10 (2008-8-6)  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

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


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

Marking: **Ex ia d IIC T4 (-20°C ≤ Ta ≤ +65°C)**

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

Position: General Manager

Signature:  
(for printed version)

  
2 SEPTEMBER 2014

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

Certificate issued by:

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





# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2014-09-02

Issue No.: 13

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Additional 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 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2011</b> Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by 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**  
**GB/BAS/ExTR14.0249/00**

File Reference:  
**04/0202**  
**13/0719**



# IECEX Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2014-09-02

Issue No.: 13

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 flammable sensor used is either type VQ500 series by SGX Sensortech (IS) Ltd, to IECEx SIR 04.0014U, or 4P series by City Technology to IECEx SIR 04.0013U, with a Code of Ex d IIC Gb and a maximum permitted ambient temperature of +55°C. These sensors are certified to EN60079-0:2009 and EN60079-1:2007.

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: 2014-09-02

Issue No.: 13

Page 4 of 4

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

### Variation 13.1

To confirm the Gasman Flammable Gas Detector has been reviewed against the requirements of IEC 60079-0: 2011 Edition 6 and IEC 60079-11: 2011 Edition 6 in respect of the differences from IEC 60079-0: 2007 Edition 5 and IEC 60079-11: 2006 Edition 5 and none of the differences affect the equipment.

### Variation 13.2

To permit minor drawing changes not affecting the original assessment.

ExTR: GB/BAS/ExTR14.0249/00

File Reference: 13/0719





# 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.: 12

Status: **Current**

Date of Issue: **2014-08-06** Page 1 of 4

Applicant: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Certificate history:  
Issue No. 12 (2014-8-6)  
Issue No. 11 (2009-12-17)  
Issue No. 10 (2008-8-6)  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

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

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

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

Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair *pp M POWNNEY*

Position:

General Manager

Signature:  
(for printed version)

*M Pownney*  
\_\_\_\_\_  
6/8/14

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:

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





# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2014-08-06

Issue No.: 12

Page 2 of 4

Manufacturer: **Crowcon Detection Instruments Ltd**  
172 Brook Drive  
Milton Park  
Abingdon  
Oxfordshire  
OX14 4SD  
United Kingdom

Additional 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'

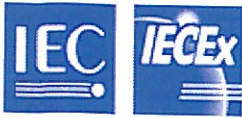
*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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: 2014-08-06

Issue No.: 12

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

Empty box for conditions of certification.



# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2014-08-06

Issue No.: 12

Page 4 of 4

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

### Variation 12.1

This issue permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design

File Reference: 14/0639



# 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.:11

Status: **Current**

Date of Issue: **2009-12-17** Page 1 of 4

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

Certificate history:  
Issue No. 11 (2009-12-17)  
Issue No. 10 (2008-8-6)  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

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

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

Marking: **IECEX BAS 05.0038**  
**Ex ia d IIC T4 Gb (-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:

  
18/12/09

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: 2009-12-17

Issue No.: 11

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 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-11 : 2006</b> Edition: 5	Explosive atmospheres - Part 11: Equipment protection by 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  
GB/BAS/ExTR09.0166/00

File Reference:  
04/0202  
09/0551







# IECEx Certificate of Conformity

Certificate No.: IECEx BAS 05.0038

Date of Issue: 2009-12-17

Issue No.: 11

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: 2009-12-17

Issue No.: 11

Page 4 of 4

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

### Variation 11.1

To permit minor drawing changes not affecting the original assessment.

### Variation 11.2

To confirm that the Gasman Flammable Gas Detector has been reviewed against the requirements of IEC 60079-0:2004 Edition 4 and IEC 60079-11:2006 Edition 5 in respect of the differences from IEC 60079-0:2000 Edition 3.1 and IEC 60079-11:1999 Edition 4 and none of the differences affect the equipment.

The flameproof component certificates associated with the equipment have been updated to IEC 60079-0:2007 Edition 5 and IEC 60079-1:2006 Edition 6.

The list of Standards on Page 2 of the certificate has been updated to show IEC 60079-0:2004 Edition 4, IEC 60079-0:2007 Edition 5, IEC 60079-1:2006 Edition 6 and IEC 60079-11:2006 Edition 5.

### Variation 11.3

To permit the alternative fitting of the Hybrid 3 sub-assembly in place of the Hybrid 1A sub-assembly not affect the original assessment.

ExTR: GB/BAS/ExTR09.0166/00

File Reference: 09/0551





# 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:  
Issue No. 10 (2008-8-6)  
Issue No. 9 (2008-6-16)  
Issue No. 8 (2008-4-4)  
Issue No. 7 (2007-7-5)  
Issue No. 6 (2006-12-20)

Status: **Current**

Date of Issue: **2008-08-06** 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: 6-8-08

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: 2008-08-08

Issue No.: 10

Page 4 of 4

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

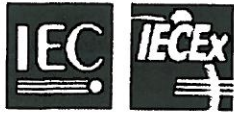
### Variation 10.1

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

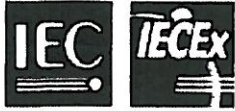
Date:

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'

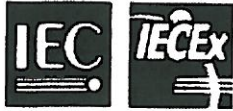
*This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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.: 0

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.

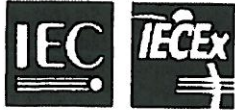
The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### 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

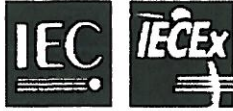
## DETAILS OF CERTIFICATE CHANGES (for Issues 1 and above):

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

Status: **Current**

Date of Issue: **2008-04-04** 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)

  
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
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File Reference: 08/0211
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# 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)  
Date of Issue: **2007-07-05**      Page 1 of 4      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)

---

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 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'

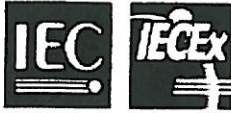
*This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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: 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)

Date:

20-12-06

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 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: **2006-12-20**

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/06/0256/1**

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:  
**06/0295**

### 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

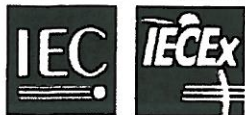
When only charging of the apparatus is required, the desktop charger part number C01941 may be replaced by any Crowcon charger with an output ( $U_m$ ) of 9V.

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)

Date:

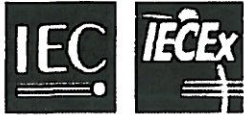
1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

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 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'

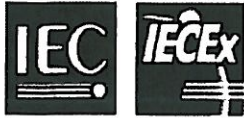
*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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: **2006-09-18**

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:

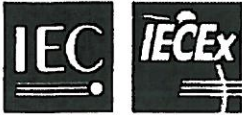
1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

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'

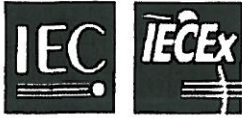
*This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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.

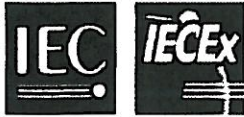
The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

### 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'

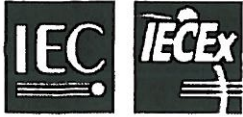
*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### 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**

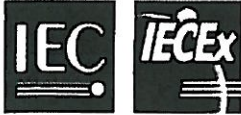
File Reference:  
**04/0202**

### 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.

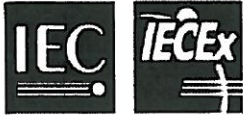
The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using a Crowcon desktop charger or charger / interface part number C01940 or C01941.

#### 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: UK/BAS/05/0256	File Reference: 04/0202
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### 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
--------------------------------	----------------------------

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)



*R S Sinclair*  
27/6/05

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: **2005-06-27**

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

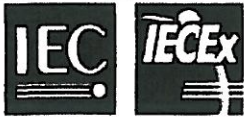
To permit:

- 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)**

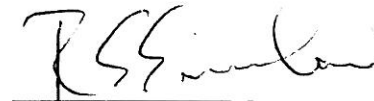
*Approved for issue on behalf of the IECEx  
Certification Body:*

R S Sinclair

*Position:*

Managing Director

*Signature:  
(for printed version)*

  
10.5-05

*Date:*

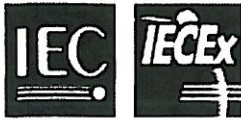
1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

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 Q2 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

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## 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:**

