

IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

| | | | |
|-----------------------|--|-------------|---|
| Certificate No.: | IECEX ULD 11.0004X | Issue No: 3 | <u>Certificate history:</u> Issue No. 3 (2013-12-02) Issue No. 2 (2012-07-02) Issue No. 1 (2012-02-19) Issue No. 0 (2011-06-01) |
| Status: | Current | Page 1 of 4 | |
| Date of Issue: | 2013-12-02 | | |
| Applicant: | Crowcon Detection Instruments Ltd. 2 Blacklands Way Abingdon Business Park, ABINGDON, Oxfordshire, OX14 1DY United Kingdom | | |
| Electrical Apparatus: | Gas-Pro, hand-held battery operated Gas Detector | | |
| Optional accessory: | Pump, Flow Plate | | |
| Type of Protection: | d ia | | |
| Marking: | Ex d ia IIC T4 Gb Tamb: -20 °C to +55 °C IECEX ULD 11.0004X | | |

Approved for issue on behalf of the IECEx
Certification Body:

Jasmin Omerovic

Position:

Certification Project Engineer

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

Certificate issued by:

UL International Demko A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark





IECEX Certificate of Conformity

Certificate No: IECEX ULD 11.0004X

Issue No: 3

Date of Issue: 2013-12-02

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Manufacturer: **Crowcon Detection Instruments Ltd.**
2 Blacklands Way
Abingdon Business Park,
ABINGDON
Oxfordshire
OX14 1DY
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:

| | |
|------------------------------------|---|
| IEC 60079-0 : 2004 Edition:4.0 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-0 : 2007-10 Edition:5 | Explosive atmospheres - Part 0:Equipment - General requirements |
| IEC 60079-1 : 2007-04 Edition:6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-11 : 2006 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

Test Report:

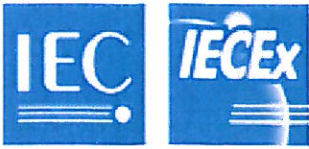
[DK/ULD/ExTR11.0005/00](#)

[DK/ULD/ExTR11.0005/01](#)

[DK/ULD/ExTR11.0005/02](#)

Quality Assessment Report:

[GB/BAS/QAR06.0070/03](#)



IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

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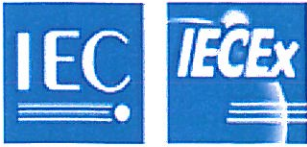
Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

CONDITIONS OF CERTIFICATION: YES as shown below:

The equipment is X-marked and shall be marked with the following warnings:
The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.



IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

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

Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.
Addition of alternative overmould material types.



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INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEX Scheme visit www.iecex.com

| | | | | |
|----------------|--------------------|----------|--------|--|
| Certificate No | IECEX ULD 11.0004X | Issue No | 2 | Certificate history |
| Status | Current | | | Issue No 2 (2012-7-2) Issue No 1 (2012-2-19) Issue No 0 (2011-6-1) |
| Date of Issue | 2012-07-02 | Page | 1 of 4 | |

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

Electrical Apparatus: **Gas-Pro, hand-held battery operated Gas Detector**
Optional accessory: **Pump, Flow Plate**

Type of Protection: **d ia**

Marking: **Ex d ia IIC T4 Gb Tamb. -20 °C to +55 °C**
IECEX ULD 11.0004X

Approved for issue on behalf of the IECEX Certification Body: **Jasmin Omerovic**

Position: **Certification Project Engineer**

Signature:
(for printed version)

Date:

- 1 This certificate and schedule may only be reproduced in full.
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- 3 The Status and authenticity of this certificate may be verified by visiting the Official IECEX Website

Certificate issued by
UL International DEMKO A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark





IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X
Date of Issue: 2012-07-02 Issue No: 2
Page 2 of 4
Manufacturer: Crowcon Detection Instruments Ltd.
2 Blacklands Way
Abingdon Business Park,
ABINGDON
Oxfordshire
OX14 1DY
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:

| | |
|-------------------------------------|---|
| IEC 60079-0 : 2004 Edition: 4.0 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-0 : 2007-10 Edition: 5 | Explosive atmospheres - Part 0: Equipment - General requirements |
| IEC 60079-1 : 2007-04 Edition: 6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| IEC 60079-11 : 2006 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

Test Report:
DK/ULD/ExTR11 0005/00 DK/ULD/ExTR11 0005/01

Quality Assessment Report:
GB/BAS/QAR06 0070/03



IECEX Certificate of Conformity

Certificate No: IECEX ULD 11 0004X

Date of Issue: 2012-07-02

Issue No.: 2

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Gas-Pro is a portable, hand-held, re-chargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data logger when secured to a person by means of a metal Grip Clip. The circuitry is housed within a polymeric enclosure with approximate dimensions of 130 mm by 83 mm by 45 mm and with orange or red over-moulding and display window. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump & flow plate is available to facilitate gas sampling.

| Main PCB Assy No. (Crowcon Part Number) | Sensors Configuration | |
|--|-----------------------|------------------------------|
| | Reference | Type |
| 1004-1080(S013005) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Toxic (Single) |
| | S3 (1) | Combustible (IR) |
| | S4 (2) | Oxygen |
| 1004-1047(S1013001) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (5V max) |
| | S3 (1) | Toxic (Single) |
| | S4 (2) | Oxygen |
| 1004-1047-01(S013021) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (4.25V max) |
| | S3 (1) | Toxic (Single) |
| | S4 (2) | Oxygen |
| 1004-1042(S1013002) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (4.25V max) |
| | S3 (1) | Combustible (IR) |
| | S4 (2) | Oxygen |

CONDITIONS OF CERTIFICATION: YES as follows:

The equipment is X-marked and shall be marked with the following warnings: **WARNING - DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS ENVIRONMENT. READ AND UNDERSTAND THE MANUAL BEFORE USE.**

The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitable cables as defined in the Electrical Data in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.

The Gas-Pro has not been assessed for Performance as a Gas Detector.

The Gas-Pro has not been assessed for Use as a Safety Device or Safety Related device.

Notes: (1) Suitably Certified Sensors (2) Non Certified Sensors.



IECEX Certificate of Conformity

Certificate No. IECEx ULD 11 0004X

Date of Issue 2012-07-02

Issue No. 2

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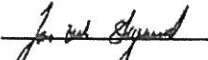
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Correction of CoC to add missing T-code to markings on page 1 (T4)



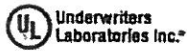
IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
For rules and details of the IECEx Scheme visit www.iecex.com

| | | | | | |
|--|---|----------|--------|---------------------|--|
| Certificate No | IECEx ULD 11.0004X | Issue No | 1 | Certificate History | Issue No. 1 (2012-2-19) Issue No. 0 (2011-6-11) |
| Status | Current | | | | |
| Date of Issue | 2012-02-19 | Page | 1 of 4 | | |
| Applicant | Crowcon Detection Instruments Ltd. 2 Blacklands Way Abingdon Business Park ABINGDON Oxfordshire, OX14 1DY United Kingdom | | | | |
| Electrical Apparatus | Gas-Pro, hand-held battery operated Gas Detector | | | | |
| Optional accessory | Pump, Flow Plate | | | | |
| Type of Protection | d ia | | | | |
| Marking | Ex d ia IIC Gb Tamb -20 °C to +55 °C IECEx ULD 11.0004X | | | | |
| Approved for issue on behalf of the IECEx Certification Body | Jasmin Osterwald | | | | |
| Position | Certification Project Engineer | | | | |
| 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:
 UL International DENKÖ A/S
 Borupvang 3A,
 DK-2750 Ballerup
 Denmark





IECEX Certificate of Conformity

Certificate No. IECEX ULD 11 0004X
 Date of Issue 2012-02-18 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(s) 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:

| | |
|--|---|
| IEC 60079-0 : 2004 Edition: 4.0 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements |
| IEC 60079-0 : 2007-10 Edition: 5 | Explosive atmospheres - Part 0: Equipment - General requirements |
| IEC 60079-1 : 2007-04 Edition: 8 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures 'd' |
| IEC 60079-11 : 2008 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 tested has successfully met the examination and test requirements as recorded in:

| | |
|---|-----------------------|
| <u>Test Report</u> DK/ULD/ExTR11 0005/00 | DK/ULD/ExTR11 0005/01 |
|---|-----------------------|

Quick Assessment Report

CB 9A3 QAR06 0070 03



IECEx Certificate of Conformity

Certificate No: IECEx ULD 11 0004X
 Date of Issue: 2012-02-10
 Issue No: 1
 Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

G25-Pro is a portable, hand-held, re-chargable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data-logger when secured to a person by means of a metal Grip Clip. The circuitry is housed within a polymeric enclosure with approximate dimensions of 130 mm by 83 mm by 45 mm and with orange or red over-moulding and display window. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump & flow plate is available to facilitate gas sampling.

| Main PCB Assy No. (Crowcon Part Number) | Sensors Configuration | |
|--|-----------------------|------------------------------|
| | Reference | Type |
| 1004-1030(S013005) | S1(1) | Toxic (Universal) |
| | S2(1) | Toxic (Single) |
| | S3(1) | Combustible (IR) |
| | S4(1) | Oxygen |
| 1004-1047(S1013001) | S1(1) | Toxic (Universal) |
| | S2(1) | Pellistor or PID (5V max) |
| | S3(1) | Toxic (Single) |
| | S4(1) | Oxygen |
| 1004-1047-01(S013021) | S1(1) | Toxic (Universal) |
| | S2(1) | Pellistor or PID (4.25V max) |
| | S3(1) | Toxic (Single) |
| | S4(1) | Oxygen |
| 1004-1047(S1013002) | S1(1) | Toxic (Universal) |
| | S2(1) | Pellistor or PID (5V max) |
| | S3(1) | Combustible (IR) |
| | S4(1) | Oxygen |
| 1004-1042-01(S013022) | S1(1) | Toxic (Universal) |
| | S2(1) | Pellistor or PID (4.25V max) |
| | S3(1) | Combustible (IR) |
| | S4(1) | Oxygen |

Notes (1) Suitably Certified Sensors(2) Non-Certified Sensors.

CONDITIONS OF CERTIFICATION; YES as shown below:

The equipment is X-marked and shall be marked with the following warnings: § WARNING – DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS LOCATION § WARNING – READ AND UNDERSTAND THE MANUAL BEFORE USE
 The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.
 The Gas-Pro has not been assessed for Performance as a Gas Detector
 The Gas-Pro has not been assessed for use as a Safety Device or Safety Related device.



IECEX Certificate of Conformity

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|----------------|--------------------|----------|--------|
| Certificate No | IECEX ULD 11.0004X | Issue No | 1 |
| Date of Issue | 2012-02-10 | Page | 4 of 4 |

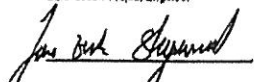
DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Addition of red overmoulded variant



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
for rules and details of the IECEx Scheme visit www.iecex.com

| | | | |
|--|---|---------------------|----------------------------|
| Certificate No. | IECEx ULD 11 0004X | Issue No. 01 | Certificate History |
| Status | Current | | |
| Date of Issue | 2011-06-01 | Page 1 of 3 | |
| Applicant | Crowcon Detection Instruments Ltd. 2 Blacklands Way Abingdon Business Park ABINGDON, Oxfordshire, OX14 1DY United Kingdom | | |
| Electrical Apparatus | Gas-Pro, hand-held battery operated Gas Detector | | |
| Optional accessory | Pump, Flow Plate | | |
| Type of Protection | d ia | | |
| Marking | Ex d ia IIC Gb Tamb: -20 °C to +35 °C | | |
| Approved for issue on behalf of the IECEx | Jasmin Omelcovic | | |
| Certification Body | | | |
| Position | Certification Project Engineer | | |
| Signature <small>(for printed version)</small> |  | | |
| Date | | | |

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Certificate issued by
 UL International DENKQ A/S
 Lyngskov 8
 P O Box 514
 2730 Herlev
 Denmark





IECEX Certificate of Conformity

| | | |
|---|---|-------------------|
| Certificate No | IECEX ULD 11 0004X | |
| Date of Issue | 2011-06-01 | 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 listed 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: | | |
| IEC 60079-0 : 2004 Edition 4.0 IEC 60079-0 : 2007-10 Edition 5 IEC 60079-1 : 2007-04 Edition 5 IEC 60079-11 : 2006 Edition 5 | Electrical apparatus for explosive gas atmospheres - Part 0: General requirements Explosive atmospheres - Part 0: Equipment - General requirements Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures 'd' 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: | | |
| <u>Test Report</u> | | |
| DKULD ExTR11 0005/00 | | |
| <u>Quality Assessment Report</u> | | |
| GB 9AS:QAR06 0070.01 | | |



IECEx Certificate of Conformity

Certificate No: IECEx ULD 11 0004X
 Date of Issue: 2011-06-01
 Issue No: 0
 Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows.

Gas-Pro is a portable, hand-held, re-chargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data logger when secured to a person by means of a metal Grip Clip. The circuitry is housed within a polymeric enclosure with approximate dimensions of 130 mm by 83 mm by 43 mm and with orange over-moulding and display window. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump & flow plate is available to facilitate gas sampling.

| Main PCB Assy No. (Crowcon Part Number) | Sensors Configuration | |
|--|-----------------------|------------------------------|
| | Reference | Type |
| 1004-1030(S013005) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Toxic (Single) |
| | S3 (1) | Combustible (IR) |
| | S4 (2) | Oxygen |
| 1004-1047(S1013001) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (5V max) |
| | S3 (1) | Toxic (Single) |
| | S4 (2) | Oxygen |
| 1004-1047-01(S013021) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (4.25V max) |
| | S3 (1) | Toxic (Single) |
| | S4 (2) | Oxygen |
| 1004-1042(S1013002) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (5V read) |
| | S3 (1) | Combustible (IR) |
| | S4 (2) | Oxygen |
| 1004-1042-01(S013022) | S1 (2) | Toxic (Universal) |
| | S2 (1) | Pellistor or PID (4.25V max) |
| | S3 (1) | Combustible (IR) |
| | S4 (2) | Oxygen |

Notes (1) Suitably Certified Sensors (2) Non Certified Sensors.

CONDITIONS OF CERTIFICATION: YES as shown below:

The equipment is X-marked and shall be marked with the following warnings: **WARNING – DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS LOCATION** & **WARNING – READ AND UNDERSTAND THE MANUAL BEFORE USE**
 The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.
 The Gas-Pro has not been assessed for Performance as a Gas Detector
 The Gas-Pro has not been assessed for use as a Safety Device or Safety Related device.

