



# 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 ULD 11.0004X

Issue No: 7

Certificate history:

Issue No. 7 (2017-12-04)

Issue No. 6 (2016-04-29)

Issue No. 5 (2015-10-19)

Issue No. 4 (2015-05-20)

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: **2017-12-04**

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

Equipment: **Gas-Pro Portable Hand-held Gas Detector**

Optional accessory: *Pump, Flow Plate*

Type of Protection: **Flameproof "db" and Intrinsic Safety "ia"**

Marking:

Ex db ia IIC T4 Gb

-20°C ≤ Ta ≤ +55°C

Approved for issue on behalf of the IECEx  
Certification Body:

Andrew Moffat

Position:

Associate Project Engineer

Signature:  
(for printed version)

Date:

2017-12-04

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: 7

Date of Issue: 2017-12-04

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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:

**IEC 60079-0 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1 : 2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

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

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[DK/ULD/ExTR11.0005/06](#)

Quality Assessment Report:

[GB/BAS/QAR06.0070/06](#)



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 7

Date of Issue: 2017-12-04

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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. The circuitry is housed within a polymeric enclosure manufactured from clear polycarbonate over-moulded with static-dissipative TPE in orange, red, or black with openings in the TPE providing display windows. 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 is available to facilitate gas sampling.

Please see Annex for additional information.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

- Only connect to Gas-Pro in a safe area for charging or communications.
- Gas-Pro must not be charged or have communication to the device, at ambient temperatures outside of the temperature range 0°C to 40°C.



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 7

Date of Issue: 2017-12-04

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

Issue 1: Addition of red overmoulded variant.

Issue 2: Correction of CoC to add missing T-code to markings on page 1 (T4).

Issue 3: Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.

Issue 4: Standard upgrade, change of address, Polycarbonate enclosure modification and addition of alternate GripClip top ring design.

Issue 5: Addition of alternative marking drawing containing info for other certification agencies.

Issue 6: Modification of existing GasPro design to reduce EMC. Alternative battery and sensors added to range.

Issue 7: Revision of rear enclosure drawing. Addition of the lower ambient charging temperature and update of the IEC 60079-1 standard to the current edition. Addition of additional sensor options also incorporated. Scheduled drawing list updated to reflect the revised construction.

## **Annex:**

[Annex to IECEx ULD 11.0004X Issue 7.pdf](#)



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 11.0004X

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## EQUIPMENT

The Main PCB is divided into separate power limiting nets to distribute power to processor, gas sensors, vibrator, sounder and pump drive circuitry. It interfaces to a charging and communications Interface and to the separate Display PCB. Upto 4 Gas Sensors are fitted of the infrared, pellistor, PID, toxic and oxygen types. The infrared, pellistor and PID type are suitably certified components. All sensor are located within energy limited circuitry.

The equipment is designed to be used with a defined selection of toxic/O<sub>2</sub> electrochemical gas sensors and one or more flammable/pellistor gas sensor. The flammable/pellistor gas sensors are 'Ex db' certified components or certified equipment. Alternatively, one or more of the permitted flammable/pellistor gas sensors are certified to the intrinsically safe protection concept only.

The Main PCB types determine the type of sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
	Combustible (IR)
	Oxygen
1004-1047 (S013001)	Toxic (Universal)
	Pellistor or PID (5V max)
	Toxic (Single)
	Oxygen
1004-1047-01 (S013021)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
1004-1042 (S013002)	Toxic (Universal)
	Pellistor or PID (5V max)
	Combustible (IR)
	Oxygen
1004-1042-01 (S013022)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Combustible (IR)
	Oxygen
ECAD-000106 (S013004)	Toxic (Universal)
	Pellistor or PID (5V max)
	Pellistor or PID (5V max)
	Oxygen
ECAD-000106-01 (S013024)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Pellistor or PID (4.25V max)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The LCD Module consists of LCD with backlight. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.



# IECEx Certificate of Conformity

Certificate No.: IECEx ULD 11.0004X

Issue No.: 7

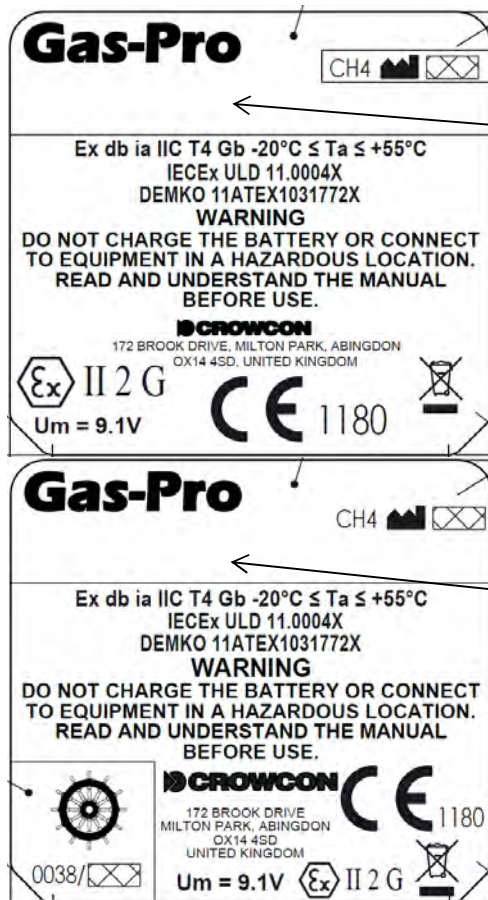
Page 2 of 2

## PARAMETERS RELATING TO THE SAFETY

Um: 9.1 V

## MARKING

Marking has to be readable and indelible; it has to include the following indications:



SPACE FOR BARCODE, SERIAL  
NUMBER, INSTRUMENT NAME AND  
YEAR OF MANUFACTURE.

SPACE FOR BARCODE, SERIAL  
NUMBER, INSTRUMENT NAME AND  
YEAR OF MANUFACTURE.



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Certificate No.: IECEx ULD 11.0004X

Issue No: 6

Certificate history:

Issue No. 6 (2016-04-29)

Status: **Current**

Page 1 of 5

Issue No. 5 (2015-10-19)

Date of Issue: **2016-04-29**

Issue No. 4 (2015-05-20)

Issue No. 3 (2013-12-02)

Applicant: **Crowcon Detection Instruments Ltd.**

Issue No. 2 (2012-07-02)

Issue No. 1 (2012-02-19)

Issue No. 0 (2011-06-01)

172 Brook Drive

Milton Park

Abingdon

Oxfordshire

OX14 4SD

United Kingdom

Electrical Apparatus: **Gas-Pro Portable Hand-held Gas Detector**

Optional accessory: *Pump, Flow Plate*

Type of Protection: **Flameproof "d" and Intrinsic Safety "ia"**

Marking:

Ex d ia IIC T4 Gb

-20°C ≤ Ta ≤ +55°C

Approved for issue on behalf of the IECEx  
Certification Body:

Katy A. Holdrege

Position:

Senior Staff Engineer

Signature:  
(for printed version)

Date:

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Certificate issued by:



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 6

Date of Issue: 2016-04-29

Page 2 of 5

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





# IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X Issue No: 6  
Date of Issue: 2016-04-29 Page 3 of 5  
Manufacturer: Crowcon Detection Instruments Ltd.  
172 Brook Drive  
Milton Park  
Abingdon  
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OX14 4SD  
United Kingdom

Additional Manufacturing  
location(s):

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## 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 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*

Test Report:

[DK/ULD/ExTR11.0005/05](#)

Quality Assessment Report:

[GB/BAS/QAR06.0070/05](#)



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 6

Date of Issue: 2016-04-29

Page 4 of 5

## 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. The circuitry is housed within a polymeric enclosure manufactured from clear polycarbonate over-moulded with static-dissipative TPE in orange, red, or black with openings in the TPE providing display windows. 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 is available to facilitate gas sampling.

See Annex for additional information.

**CONDITIONS OF CERTIFICATION: YES as shown below:**

See Annex for Conditions of Certification.



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 6

Date of Issue: 2016-04-29

Page 5 of 5

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

Issue 1: Addition of red overmoulded variant

Issue 2: Correction of CoC to add missing T-code to markings on page 1 (T4).

Issue 3: Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.

Issue 4: Standard upgrade, change of address, Polycarbonate enclosure modification and addition of alternate GripClip top ring design.

Issue 5: Addition of alternative marking drawing containing info for other certification agencies.

Issue 6: Modification of existing GasPro design to reduce EMC. Alternative battery and sensors added to range.

## Annex:

[Annex to IECEx ULD 11.0004X Issue 6.pdf](#)

The Main PCB is divided into separate power limiting nets to distribute power to processor, gas sensors, vibrator, sounder and pump drive circuitry. It interfaces to a charging and communications Interface and to the separate Display PCB. Up to 4 Gas Sensors are fitted of the infrared, pellistor, PID, toxic and oxygen types. The infrared, pellistor and PID type are suitably certified components. All sensor are located within energy limited circuitry.

The equipment is designed to be used with a defined selection of toxic/O<sub>2</sub> electrochemical gas sensors and one or more flammable/pellistor gas sensor. The flammable/pellistor gas sensors are 'Ex d' certified components,

The Main PCB types determine the type of sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
	Combustible (IR)
	Oxygen
1004-1047 (S013001)	Toxic (Universal)
	Pellistor or PID (5V max)
	Toxic (Single)
	Oxygen
1004-1047-01 (S013021)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
1004-1042 (S013002)	Toxic (Universal)
	Pellistor or PID (5V max)
	Combustible (IR)
	Oxygen
1004-1042-01 (S013022)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Combustible (IR)
	Oxygen
ECAD-000106 (S013004)	Toxic (Universal)
	Pellistor or PID (5V max)
	Pellistor or PID (5V max)
	Oxygen
ECAD-000106-01 (S013024)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Pellistor or PID (4.25V max)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The LCD Module consists of LCD with backlight. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.

Annex to IECEx ULD 11.0004X Issue 6

Applicant: Crowcon Detection Instruments Ltd.

### Conditions of Certification

The equipment is X-marked and shall be marked with the followings 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 following additional previous editions of the Standards noted under the "Standards" section of this certificate were applied to integral components as itemised below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

Gas Sensor Head, VQ500 Series, Manufactured by SGX Sensortech (IS) Ltd. (Previously E2V).	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition
Gas Sensor Head, IR1 Series, Manufactured by SGX Sensortech (IS) Ltd. (Previously E2V).	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition
Gas Sensor Head, 4P75 Series, Manufactured by City Technology Limited.	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition



## 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 ULD 11 0004X	Issue No.:5	Certificate history: Issue No. 5 (2015-10-19) Issue No. 4 (2015-5-20) Issue No. 3 (2013-12-2) Issue No. 2 (2012-7-2) Issue No. 1 (2012-2-19) Issue No. 0 (2011-6-1)
Status:	Current		
Date of Issue	2015-10-19	Page 1 of 4	
Applicant	<b>Crowcon Detection Instruments Ltd.</b> 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom		
Electrical Apparatus: Optional accessory:	Gas-Pre, hand-held battery operated Gas Detector Pump, Flow Plate		
Type of Protection	Flameproof "d" and Intrinsic Safety "ia"		
Marking:	Ex d ia IIC T4 Gb -20 °C to +55 °C		
Approved for issue on behalf of the IECEx Certification Body:	Jasmin Omerovic		
Position:	Program Manager		
Signature: (for printed version)	_____		
Date:	_____		

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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: 2015-10-19

Issue No. 5

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:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 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

Test Report:  
[DK/ULD/ExTR11 0005/04](#)

Quality Assessment Report:  
[GB/BAS/QAR06.0070/04](#)



## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11 0004X

Date of Issue 2015-10-19

Issue No. 5

Page 3 of 4

### 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 manufactured from clear polycarbonate over-moulded with static-dissipative TPE, orange, red and black, with openings in the TPE providing display windows. Battery charging and data transfer to the equipment is by the use of an optional charging and

Refer to Annex for additional information.

#### CONDITIONS OF CERTIFICATION: YES as shown below:

Refer to Annex for additional information.



## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11.0004X

Date of Issue 2015-10-19

Issue No. 5

Page 4 of 4

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

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Issue 2: Correction of CoC to add missing T-code to markings on page 1 (T4).  
Issue 3: Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.  
Issue 4: Standard upgrade, change of address, Polycarbonate enclosure modification and addition of alternate GripClip top ring design  
Issue 5: Addition of alternative marking drawing containing info for other certification agencies

Annex: [Annex to IECEx ULD 11.0004X Issue 5.pdf](#)

The Main PCB is divided into separate power limiting nets to distribute power to processor, gas sensors, vibrator, sounder and pump drive circuitry. It interfaces to a charging and communications Interface and to the separate Display PCB. Up to 4 Gas Sensors are fitted of the infrared, pellistor, PID, toxic and oxygen types. The infrared, pellistor and PID type are suitably certified components. All sensors are located within energy limited circuitry.

The equipment is designed to be used with a defined selection of toxic/O<sub>2</sub> electrochemical gas sensors and one or more flammable/pellistor gas sensor. The flammable/pellistor gas sensors are 'Ex d' certified components,

The Main PCB types determine the type of sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
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	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
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	Combustible (IR)
	Oxygen
ECAD-000106 (S013004)	Toxic (Universal)
	Pellistor or PID (5V max)
	Pellistor or PID (5V max)
	Oxygen
ECAD-000106-01 (S013024)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Pellistor or PID (4.25V max)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The LCD Module consists of LCD with backlight. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.

The ambient temperature ranges are:

Safe Area: 0 °C to +40 °C.  
Hazardous Area: -20 °C to +55 °C.

#### Electrical data

Intrinsically safe specifications:

U<sub>m</sub>: 9.1 V

#### Conditions of Certification

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 following additional previous editions of the Standards noted under the "Standards" section of this certificate were applied to integral components as itemised below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

Gas Sensor Head, VQ500 Series, Manufactured by SGX Sensortech (IS) Ltd. (Previously E2V).	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition
Gas Sensor Head, IR1 Series, Manufactured by SGX Sensortech (IS) Ltd. (Previously E2V).	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition
Gas Sensor Head, 4P75 Series, Manufactured by City Technology Limited.	IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1: 2007-04, 6th Edition



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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Certificate No.: IECEx ULD 11.0004X

Issue No: 4

Certificate history:

Issue No. 4 (2015-05-20)

Status: **Current**

Page 1 of 6

Issue No. 3 (2013-12-02)

Date of Issue: **2015-05-20**

Issue No. 2 (2012-07-02)

Issue No. 1 (2012-02-19)

Issue No. 0 (2011-06-01)

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

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

Type of Protection: **Flameproof "d" and Intrinsic Safety "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:

Program Manager

Signature:  
(for printed version)

Date:

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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: 4

Date of Issue: 2015-05-20

Page 2 of 6

Manufacturer: **Crowcon Detection Instruments Ltd.**  
172 Brook Drive  
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United Kingdom

Additional Manufacturing  
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## 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*

### Test Report:

DK/ULD/ExTR11.0005/00  
DK/ULD/ExTR11.0005/03

DK/ULD/ExTR11.0005/01

DK/ULD/ExTR11.0005/02

### Quality Assessment Report:

GB/BAS/QAR06.0070/04



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 4

Date of Issue: 2015-05-20

Page 3 of 6

## 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 manufactured from clear polycarbonate over-moulded with static-dissipative TPE, orange, red, & black, with openings in the TPE providing display windows. 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 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Single Toxic
	S3 <sup>(1)</sup>	IR
	S4 <sup>(2)</sup>	Oxygen
1004-1047 (S013001)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (5V max)
	S3 <sup>(1)</sup>	Single Toxic
	S4 <sup>(2)</sup>	Oxygen
1004-1047-01 (S013021)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (4.25V max)
	S3 <sup>(1)</sup>	Single Toxic
	S4 <sup>(2)</sup>	Oxygen
1004-1042 (S013002)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (5V max)
	S3 <sup>(1)</sup>	IR
	S4 <sup>(2)</sup>	Oxygen
1004-1042-01 (S013022)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (4.25V max)
	S3 <sup>(1)</sup>	IR
	S4 <sup>(2)</sup>	Oxygen
ECAD-000106 (S013004)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (5V max)
	S3 <sup>(1)</sup>	Pellistor/PID (5V max)
	S4 <sup>(2)</sup>	Oxygen
ECAD-000106-01 (S013024)	S1 <sup>(2)</sup>	Universal Toxic
	S2 <sup>(1)</sup>	Pellistor/PID (4.25V max)
	S3 <sup>(1)</sup>	Pellistor/PID (4.25V max)
	S4 <sup>(2)</sup>	Oxygen

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



# IECEX Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 4

Date of Issue: 2015-05-20

Page 4 of 6

CONDITIONS OF CERTIFICATION: YES as shown below.

The equipment is X-marked and shall be marked with the followings warnings:



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 4

Date of Issue: 2015-05-20

Page 5 of 6

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 following additional previous editions of the Standards noted under the "Standards" section of this certificate were applied to integral components as itemised below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

Gas Sensor Head, VQ500 Series, Manufactured by SGX  
Sensortech (IS) Ltd. (Previously E2V).

IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1:  
2007-04, 6th Edition

Gas Sensor Head, IR1 Series, Manufactured by SGX Sensortech (IS) Ltd. (Previously E2V).

IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1:  
2007-04, 6th Edition

Gas Sensor Head, 4P75 Series, Manufactured by City Technology Limited.

IEC 60079-0: 2007-10, 5th Edition, IEC 60079-1:  
2007-04, 6th Edition



# IECEx Certificate of Conformity

Certificate No: IECEx ULD 11.0004X

Issue No: 4

Date of Issue: 2015-05-20

Page 6 of 6

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

Issue 1: Addition of red overmoulded variant

Issue 2: Correction of CoC to add missing T-code to markings on page 1 (T4).

Issue 3: Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.

Issue 4: Standard upgrade, change of address, Polycarbonate enclosure modification and addition of alternate GripClip top ring design.



## 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 ULD 11.0004X	Issue No	3	Certificate history: ... Issue No. 3 (2013-12-2) Issue No. 2 (2012-7-2) Issue No. 1 (2012-7-19) Issue No. 0 (2011-6-1)
Status	Current			
Date of Issue	2013-12-02	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.
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 Demko A/S  
Borupvang 5A,  
DK-2750 Ballerup  
Denmark





## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11.0004X

Date of Issue: 2013-12-02

Issue No. 3

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

DK/ULD/ExTR11 0005/02

#### Quality Assessment Report:

GB/BAS/QAR06 0070/03



## IECEX Certificate of Conformity

Certificate No.: IECEX ULD 11 0004X

Date of Issue: 2013-12-02

Issue No. 3

Page 3 of 4


### 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 polymenc enclosure with approximate dimensions of 130 mm by 83 mm by 45 mm manufactured from clear polycarbonate over-moulded with static-dissipative TPE, orange, red, & black, with openings in the TPE providing display windows. 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)	Universal Toxic
	S2 (1)	Single Toxic
	S3 (1)	IR
	S4 (2)	Oxygen
1004-1047 (S013001)	S1 (2)	Universal Toxic
	S2 (1)	PellistorPID (5V max)
	S3 (1)	Single Toxic
	S4 (2)	Oxygen
1004-1047-01 (S013021)	S1 (2)	Universal Toxic
	S2 (1)	PellistorPID (4.25V max)
	S3 (1)	Single Toxic
	S4 (2)	Oxygen
CONDITIONS OF CERTIFICATION: YES		
The equipment is 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 a charging circuit or communications interface circuit, using only suitably rated cables as defined in the manual data, in a safe area, within a maximum ambient temperature of 40 °C		
1004-1042-01 (S013022)	S1 (2)	Universal Toxic
	S2 (1)	PellistorPID (4.25V max)
	S3 (1)	IR
	S4 (2)	Oxygen
ECAD-000106 (S013004)	S1 (2)	Universal Toxic
	S2 (1)	PellistorPID (5V max)
	S3 (1)	PellistorPID (5V max)
	S4 (2)	Oxygen
ECAD-000106-01 (S013024)	S1 (2)	Universal Toxic
	S2 (1)	PellistorPID (4.25V max)
	S3 (1)	PellistorPID (4.25V max)
	S4 (2)	Oxygen
Notes: (1) Suitably Certified Sensors, (2) Not Certified Sensors.		

		<b>IECEx Certificate of Conformity</b>	
Certificate No.	IECEx ULD 11 0004X		
Date of Issue	2013-12-02	Issue No.	3
		Page	4 of 4
<b>DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):</b>			
Addition of new Main PCB types ECAD-000106 and ECAD-000106-01.			
Addition of alternative overmould material types.			



## 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 ULD 11.0004X	Issue No. 2	Certificate history Issue No. 2 (2012-7-2) Issue No. 1 (2012-2-12) Issue No. 0 (2011-6-1)
Status	Current		
Date of Issue	2012-07-02	Page 1 of 4	

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

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

Type of Protection

Ex ia

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

Approved for issue on behalf of the IECEX  
Certification Body

Joselyn Omerovic

Position:

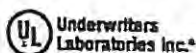
Certification Project Engineer

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 DENKO 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  
(1)

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 60073-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60073-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60073-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60073-11 : 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:  
DKAULDEXTR11 0005-00

DKAULDEXTR11 0005-01

Quality Assessment Report:

GBBAS-QAR01 007E-03



## IECEX Certificate of Conformity

Certificate No.

IECEX ULD 11 0004X

Date of Issue:

2012-07-02

Issue No.: 2

Page 3 of 4

### 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. (Circuitry Part Number)	Sensors Configuration	
	Reference	Type
1004-1060(5013005)	S1 (2)	Toxic (Universal)
	S2 (1)	Toxic (Single)
	S3 (1)	Combustible (IR)
	S4 (2)	Oxygen
1004-1047(3101301)	S1 (2)	Toxic (Universal)
	S2 (1)	Pellistor or PID (5V max)
	S3 (1)	Toxic (Single)
	S4 (2)	Oxygen
1004-1047-01(5013021)	S1 (2)	Toxic (Universal)
	S2 (1)	Pellistor or PID (4.25V max)
	S3 (1)	Toxic (Single)
	S4 (2)	Oxygen
1004-1047-01(5013022)	S1 (2)	Toxic (Universal)
	S2 (1)	Pellistor or PID (4.25V max)
	S3 (1)	Toxic (Single)
	S4 (2)	Oxygen

CONDITION OF CERTIFICATION: YES AS

The equipment 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.



## IECEx Certificate of Conformity

Certificate No.

IECEx ULD 11 0004X

Date of Issue

2012-07-02

Issue No. 2

Page 4 of 4

**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

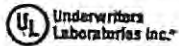
INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC Certification Scheme for Explosive Atmospheres

For more details of the IECEx Scheme visit [www.iec.ch](http://www.iec.ch)

Certificate No.	IECEx ULD 11.0004X	Issue No.	1	Certificate history: Issue No. 1 (2012-12-12) Issue No. 0 (2011-01-11)
Status	Current			
Date of Issue	2012-02-10	Page	1 of 4	
Applicant	Crimson Detection Instruments Ltd. 2 Baskins Way Abingdon Business Park ABINGDON Oxfordshire OX14 1DY United Kingdom			
Electrical Apparatus	Gas-Pro, hand-held battery operated Gas Detector			
Optional accessory	Pump Pump Plate			
Type of Protection	d is			
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	Iain A. Owens			
Position	Certification Project Engineer			
Signature (for printed version)				
Date				

1. This certificate and its contents 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 Office of IECEx Verification.

Certificate issued by  
UL International DEWLO AG  
Bismarckstr. 34  
D-32756 Bielefeld  
Germany





## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11.0004X

Date of Issue 2012-04-10

Issue No. 1

Page 2 of 4

Manufacturer  
Cromham Detection Instruments Ltd.  
2 Blackstone Way  
Aberdeen Business Park  
Aberdeen  
Orkney  
United Kingdom

### Manufacturing Declaration

This certificate is issued on condition that a sample of representative production, was assessed and found to comply with the IEC Standards set below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to conform to the IECEx Quality system requirements. This certificate is granted subject to the conditions 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 detailed documents, will be found to comply with the following standards:

IEC 60730-0 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0 General requirements  
Edition 4.0  
IEC 60730-0 : 2007-10 Electrical apparatus - Part 0 Equipment General requirements  
Edition 3  
IEC 60079-1 : 2007-04 Explosive atmospheres - Part 1 Equipment protection by flameproof enclosure 'd'  
Edition 4  
IEC 60079-11 : 2006 Explosive atmospheres - Part 11 Equipment protection by intrinsic safety 'i'  
Edition 3

This Certificate does not state 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 assessment and test requirements detailed in:

#### Test Report

DECLARATION CODE

DECLARATION CODE

#### Quality Assessment Report

CB 9430406 00103



## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11.0004X  
Date of Issue 2012-02-16

Issue No. 1  
Page 3 of 4

### Schedule

#### EQUIPMENT

Equipment and systems covered by this certificate are as follows:

Gas-Pro is a portable, handheld, rechargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and datalogger when secured by a person by means of a metal Grip Clip. The charging is housed within a polycarbonate enclosure with a maximum dimensions of 110 mm by 63 mm by 45 mm, and with orange or red emergency and display windows. Battery charging and data transfer to the management system is by the use of an optional charging and communications cable, for use in a safe area only. An optional pump & flow plate is available for toxic gas sampling.

Main PCB Assy No. (Circuit Board Number)	Secondary Configuration	Type
1004-1040(5013005)	31 (1)	Toxic (Universal)
	32 (1)	Toxic (Single)
	33 (1)	Combustible (IR)
	34 (1)	Oxygen
1004-1041(5013001)	31 (2)	Toxic (Universal)
	32 (1)	Poisonous or PID (SV max)
	33 (1)	Toxic (Single)
	34 (2)	Oxygen
1004-1042(5013002)	31 (2)	Toxic (Universal)
	32 (1)	Poisonous or PID (4.25V max)
	33 (1)	Toxic (Single)
	34 (2)	Oxygen
1004-1043(5013003)	31 (2)	Toxic (Universal)
	32 (1)	Poisonous or PID (SV max)
	33 (1)	Combustible (IR)
	34 (2)	Oxygen
1004-1047(5013002)	31 (2)	Toxic (Universal)
	32 (1)	Poisonous or PID (4.25V max)
	33 (1)	Combustible (IR)
	34 (2)	Oxygen

Notes: (1) Solitary Certified Sensors (2) Non Certified Sensors

#### CONDITIONS OF CERTIFICATION: YES as shown below:

The equipment is 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

Certificate No. IECEX ULD 11.0004X  
Date of Issue 2012-02-18

Issue No. 1  
Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for Issues 1 and above)  
Addition of new overmoulded version



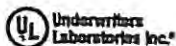
## IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC Certification Scheme for Explosive Atmospheres  
For rules and details of the IECEx Scheme visit [www.iec.ch/iecex](http://www.iec.ch/iecex)

Certificate No.	IECEx ULD 11.0004X	Issue No.	0	Certificate history
Status	Current			
Date of issue	2011-06-01	Page	1 of 3	
Applicant	Crowncon Detection Instruments Ltd. 2 Blandford Way Avington Business Park A824GDDX Oxfordshire OX14 1DY United Kingdom			
Electrical Apparatus	Gas-Fire, hand-held battery operated Gas Detector			
Optional accessory	Pump, Flow Meter			
Type of Protection	dLs			
Marking	Ex d IIC DC Ch T4mb, -20 °C to +35 °C			
Approved for issue on behalf of the IECEx Certification Body	Jasmin Omerovic			
Authorised	Certification Engineer			
Signature (for printed version)				
Date				

1. This certificate and its contents 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 BEMCO A/S  
Lyngbyvej 5  
P.O. Box 514  
2730 Nordby  
Denmark





## IECEx Certificate of Conformity

Certificate No. IECEx ULD 11.0004X  
 Date of Issue 2011-06-01 Issue No. 2  
 Page 2 of 3  
 Manufacturer Crompton Detection Instruments Ltd.  
 2 Brackley Way  
 Abingdon Business Park  
 Abingdon  
 Oxfordshire  
 OX14 1DY  
 United Kingdom

### Manufacturing location(s)

This certificate is issued as evidence that a sample(s) representative of production was designed and tested and found to comply with the IEC Standard(s) above 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 set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

### STANDARDS:

The technical apparatus and any acceptable variations to it specified in the schedule of Ex certificates and the certified documents was found to comply with the following standards:

IEC 60079-0 : 2004 Electrical apparatus for explosive gas atmospheres - Part 0: General requirements  
 Edition 4.0  
 IEC 60079-1 : 2007-10 Explosive atmospheres - Part 1: Equipment - General requirements  
 Edition 3  
 IEC 60079-11 : 2007-04 Explosive atmospheres - Part 11: Equipment protection by increased temperatures 't'  
 Edition 3  
 IEC 60079-11 : 2004 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety 'i'  
 Edition 3

This Certificate does not indicate compliance with physical 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 assessment and test requirements as recorded in:

Test Report

DECLAD EX111 000500

Quality Assessment Report

QS 045-0400 007503



# IECEx Certificate of Conformity

Certificate No. IECEx 010 11 CCO04X  
Date of Issue 23/01/05

Page 3 of 3

### Schedule

**EQUIPMENT:**

Equipment and systems covered by the certificate are as follows:

**EQUIPMENT:**  
A computer and system covered by this certificate are as follows:

1. Gas-Pro is a portable, hand-held, rechargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and detector when secured to a person by a 3' lead line, and oxygen depletion. The detector is powered by a polymer-anode battery with approximate dimensions of 130 mm by 130 mm by 33 mm and will charge over desktop and display window. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cable. For use in a safe area only. As a result of the pump, it may not be available for accurate sampling.

Main PCB Army No. (Crossbow Part Number)	Secondary Card Number	Secondary Card Location
1004-10430130025	31A1	Trans (Antenna)
	32A1	Trans (Single)
	33A1	Condensator (H)
	34A1	Oxygen
	35A1	Trans (Universal)
1024-104103102201	32A1	Push plate or P.D. (15V max)
	33A1	Trans (Single)
	34A1	Oxygen
	35A1	Trans (Universal)
1040-1041070130221	32A1	Push plate or P.D. (4.25V max)
	33A1	Trans (Single)
	34A1	Oxygen
	35A1	Trans (Universal)
1040-1042101030027	32A1	Push plate or P.D. (15V max)
	33A1	Condensator (H)
	34A1	Oxygen
	35A1	Trans (Universal)
1004-1043-01315013022	32A1	Push plate or P.D. (4.25V max)
	33A1	Condensator (H)
	34A1	Oxygen
	35A1	Trans (Universal)
Notes: (1) Secondary Carded on Secondary Card. (2) Main Carded on Secondary Card.		

CONDITIONS OF CERTIFICATION: YES as shown below.

The power plant 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.

17. Did the Test Not Meet Expectations for Performance as a Gas Detector

The C3i-Pro has not been assessed for use as a Safety Device or Safety Related device