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 TUR 16.0035X	Issue No: 1
Status:	Current	
Date of Issue:	2019-01-25	Page 1 of 4

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

Equipment: **Gas Detector**
Optional accessory: *Type XGard Bright*

Type of Protection: **Flameproof enclosure "db", and Equipment dust ignition protection by enclosure "tb"**

Marking:

Ex db IIC T6 Gb

Ex tb IIIC T80°C Db

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

Dipl.-Ing. Yang Wang

Position:

Assigned certifier

Signature:
(for printed version)

Date:

Wang Yang
2019-01-25

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:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

TÜVRheinland

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Certificate No:	IECEx TUR 16.0035X	Issue No: 1
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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 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 : 2017
Edition:7.0
Explosive atmospheres - Part 0: Equipment - General requirements

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

IEC 60079-31 : 2013
Edition:2
Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

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:

DE/TUR/ExTR16.0035/00   DE/TUR/ExTR16.0035/01

Quality Assessment Report:

GB/BAS/QAR06.0070/06   GB/BAS/QAR06.0070/07

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

XGard bright gas detector is for fixed installation.

The XGard bright gas detector has a flameproof enclosure,it comprises an aluminium alloy base and threaded top cover(material ADC12).On the base there are a thread gas sintered metal elements and detector housing,and cable entry ports.There are four PCB board:terminal PCB board,display PCB board,main PCB board and sensor PCB board are fixed in the base.

There are two M20*1.5 entry ports on the surface of the base.One entry port used for power supply(by ATEX/IECEx certified cable gland), other one maybe install alarm device or connect with other external devices.The unused entry port shall be blocked by ATEX/IECEx certified solid plug with minimum IP66 ingress protection.

The XGard Bright gas detector is available with either flammable, toxic or oxygen gas sensor modules which are installed within the base (flameproof enclosure).The sensor modules consist of the sensor and sensor holder,the different sensor holder used to fix the different sensor type.

IP65 rating for products without weather proof cap assembly,IP66 rating for product with weather proof cap assembly.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.

2. The only suitable certified cable gland with minimum IP66 rating can be used for installation purpose by end user.

3. The flameproof properties of the enclosure shall be maintained when an external alarm device is used.

4. Unused cable entries must be sealed using an ATEX/IECEx Ex db and Ex tb certified stopping plug with minimum IP66 ingress protection.

5. Only the cables which are specified in the user manual can be used.

6. External earthing should be considered and installed according to user manual before use.

7. WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

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

1. Tamb was changed from -40°C~+60°C to -40°C~+70°C.

2. Adhesive used on the cemented joint was changed from type 3M DP-100 to type 3M DP-100Plus and type LOCTITE Hysol® E-40EXP.

3. Added M20- 1/2"NPT adapter as option.

4. Optional ferrite fitted or not.

5. Added type of protection "tb".

6. The model name of gas detector was changed from "XgardID" to "XGard Bright"

7. IEC 60079-0:2011 Edition 6 was updated to IEC 60079-0:2017 Edition 7.

Annex:

DE-IECEx_TUR_16.0035X_01_Attachment.pdf

Attachment to Certificate IECEx TUR 16.0035X

Device: **Gas Detector,type XGard Bright**

Manufacturer: **Crowcon Detection Instruments Ltd.**

Address: **172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD**
                     United Kingdom

General product information:
XGard Bright gas detector is for fixed installation.
The XGard Bright gas detector has a flameproof enclosure,it comprises an aluminium alloy base and threaded top cover(material ADC12).On the base there are a thread gas sintered metal elements and detector housing,and cable entry ports.There are four PCB boards:terminal PCB board,display PCB board,main PCB board and sensor PCB board are fixed in the base.

There are two M20*1.5 entry ports on the surface of the base.One entry port used for power supply(by ATEX/IECEx certified cable gland), other one maybe install alarm device or connect with other external devices.The unused entry port shall be blocked by ATEX/IECEx certified solid plug with minimum IP66 ingress protection.

The XGard Bright gas detector is available with either flammable, toxic or oxygen gas sensor modules which are installed within the base (flameproof enclosure).The sensor modules consist of the sensor and sensor holder, the different sensor holder used to fix the different sensor type.

IP65 rating for products without weather proof cap assembly,IP66 rating for product with weather proof cap assembly.

Technical data

Electrical data

10~30VDC / 0~100mA / 3W Max

Environmental data

Tamb:-40°C ~+70°C

IP Rating:IP65(without weather proof cap assembly) / IP66(with weather proof cap assembly)