IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx TUR 16.0035X**

Certificate history:
Issue 1 (2019-01-25)
Issue 0 (2016-11-02)

Status: **Current**

Issue No: 2

Date of Issue: 2022-10-24

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

Equipment: **Gas Detector, model XGard Bright**

Optional accessory:

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

Marking:

Aluminium variant:
Ex db IIC T6 Gb
Ex tb IIIC T80°C Db
Tamb:-40°C≤Ta≤+70°C

Stainless Steel variant:
Ex db IIC T4/T3 Gb
Ex tb IIIC T80°C Db
Tamb:-40°C≤Ta≤+70°C(Classification T3) and Tamb:-40°C≤Ta≤+50°C(Classification T4)

Approved for issue on behalf of the IECEx Certification Body: **Dipl.-Ing. He Mei**

Position: **Assigned certifier**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

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

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

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

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

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

This Certificate **does not** indicate compliance with 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 Reports:

DE/TUR/ExTR16.0035/00 DE/TUR/ExTR16.0035/01 DE/TUR/ExTR16.0035/02

Quality Assessment Reports:

GB/BAS/QAR06.0070/06 GB/BAS/QAR06.0070/07 GB/BAS/QAR06.0070/08
GB/BAS/QAR06.0070/10

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

XGard bright gas detector is for fixed installation.

XGard bright gas detector has a flameproof enclosure and dust enclosure,it comprises an base and threaded top cover(material SUS316 or ADC12).There are one Sintered Metal Element assembly threaded into enclosure base as one unit.Sinter DISC is fixed on the Sinter Retainer by threaded Sinter clamping ring.

There are four PCB board located in the enclosure:terminal board,display board,main board and sensor board. One flameproof chamber is designed.

There are two M20*1.5 or two 1/2NPT entry ports on the surface of enclosure base(internal thread).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(these devices should be considered with the gas detector together with relevant Ex standards so that the integrity of flameproof enclosure and dust enclosure is guaranteed).The unused entry port shall be blocked by ATEX/IECEx certified solid plug with minimum IP65 ingress protection.

XGard Bright gas detector is available with either flammable, toxic or oxygen gas sensor modules which are installed within the enclosure base. The sensor modules consist of the sensor and sensor holder; the different sensor holder used to fix the different sensor type as below, Sensor assemblies available are CON-01500-A4-CN(Gas sensor assembly),CON-01600-A4-CN(Combustible gas sensor assembly),CON-01800-A4-CN(PID sensor assembly),4702-A2(IR sensor assembly),CON-01E00-A4-CN(IR sensor assembly) and CON-01F00-A4-CN(MPS sensor assembly).

Electrical data
Rating:10~30VDC / 0~100mA / 3W Max

Environmental data
Gas atmosphere:
Aluminium variant:
Tamb:-40°C≤Ta≤+70°C(Classification T6)

Stainless Steel variant:
Tamb:-40°C≤Ta≤+70°C(Classification T3) and Tamb:-40°C≤Ta≤+50°C(Classification T4)

Dust atmosphere:T80°C

IP Ratings:
Aluminium variant: IP65/IP66(without or with weather proof cap assembly)
Stainless Steel variant: IP65

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 IP65/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 IP65/IP66 ingress protection.
5. Only the cables/wires 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)

- Added a new Stainless steel 316 threaded top cover.The length of cemented joints is changed to 16mm instead of 13mm;
- The external earthing symbol is modified(only for the previous Aluminium Xgard Bright);
- Added entry device with 1/2"NPT thread form on the surface of base assembly(for Stainless steel enclosure only);
- Added new sensor type: IR sensor and MPS sensor;
- New Stainless steel 316 enclosure;