

1 **EU - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 2014/34/EU**

3 EU - Type Examination Certificate **Baseefa04ATEX0115X – Issue 7**  
Number:

3.1 In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

4 Product: **Xgard Gas Detector**

5 Manufacturer: **Crowcon detection instruments Limited**

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

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa04ATEX0115X to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Baseefa, Notified Body number 1180, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR16.0340/00**

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN60079-0: 2012 + A11: 2013 EN60079-11: 2012**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following :

**⊕ II 1 G Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +55°C)**

SGS Baseefa Customer Reference No. **0249**

Project File No. **16/0384**

This document is issued by the Company subject to its General Conditions for Certification Services accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and the Supplementary Terms and Conditions accessible at <http://www.sgs.com/SGSBaseefa/Terms-and-Conditions.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. It does not necessarily indicate that the equipment may be used in particular industries or circumstances. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, schedule included, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.


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Registered in England No. 4305578.

Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN



R S SINCLAIR

TECHNICAL MANAGER

On behalf of SGS Baseefa Limited

ABELLMAN  
Certification  
Manager

13

## Schedule

14

Certificate Number Baseefa04ATEX0115X – Issue 7

### 15 Description of Product

The Xgard Gas Detector is a loop-powered gas detector which can be used to detect Toxic gases or Oxygen depending upon the circuitry and electrochemical cell used and provide a 4-20mA output signal. It comprises an electrochemical cell (and accompanying sensor PCB) and an amplifier PCB mounted within a stainless steel or glass filled nylon enclosure.

Electrical connections to the amplifier PCB are made to a terminal block with cable access to the enclosure being provided by a threaded entry hole. Access to the terminal block and PCB is gained by a removable threaded lid with an O-ring seal.

#### Toxic Detector, Terminals + and –

$$U_i = 28V$$

$$I_i = 300mA \quad C_i = 14.4nF$$

$$P_i = 1.2W \quad L_i = 28\mu H$$

#### Oxygen Detector, Terminals + and –

$$U_i = 28V$$

$$I_i = 300mA \quad C_i = 13.2nF$$

$$P_i = 1.2W \quad L_i = 0$$

### 16 Report Number

GB/BAS/ExTR16.0340/00

### 17 Specific Conditions of Use

1. The apparatus has a plastic enclosure (introduced in Issue 2) that constitutes a potential electrostatic hazard. The enclosure must be cleaned only with a damp cloth.

NOTE: This condition does not apply to the stainless steel enclosure version.

### 18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.4.1	External effects
1.4.2	Aggressive substances, etc.

### 19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
4805	1	11	23/11/2017	IS ST.STEEL LABEL
5369-CERT	1	04	30/11/2012	Xgard ATEX IS CERT Label
4749-CERT	1	2	09/08	XGARD INTERNAL SERIAL No LABEL
4824-CD-CERT	1	8	13/12/2017	XGARD Toxic Head (Non-Bias) Circuit Diagram



Number	Sheet	Issue	Date	Description
4824-PL-CERT	1	7	31/10/2017	XGARD Toxic Head (Non-Bias) Parts List
4825-CD-CERT	1-2	8	13/12/17	Xgard Oxygen Head
5675-CD-CERT (Created from S-4824)	1	5	13/12/17	Xgard Oxygen & Toxic Sensor
5675-PL-CERT	1	2	5/11/08	Xgard Oxygen & Toxic Sensor Parts List
ENG-001048	1-5	1	28 September 2017	Xgard Type 1 Certified Sensor List.

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
MCAD-000080	1 of 1	01	11/03/2011	Xgard IS St. Steel GA
5365-CERT	1 of 1	1	OCT/07	Type 1 Xgard IS Enclosure
CON-4782-A1		1	Oct-06	Xgard IS Enclosure Base Machining Detail - Metric (Alternative to CON-4722-A1)
S-4790-1A	1 of 1	1	5/06	Xgard Oxygen Amplifier PCB Modification DCP2122 for Issue 3 PCBs
S-4830 Iss 2 Sheet 1	1 of 4	4	01/05/06	Xgard Oxygen Amplifier Assy Top (Issue 4 PCB)
S-4830 Iss 2 Sheet 2	2 of 4	4	01/05/06	Xgard Oxygen Amplifier Silkscreen Top (Issue 4 PCB)
S-4830 Iss 2 Sheet 3	3 of 4	4	01/05/06	Xgard Oxygen Amplifier Top Copper (Issue 4 PCB)
S-4830 Iss 2 Sheet 4	4 of 4	4	01/05/06	Xgard Oxygen Amplifier Bottom Copper (Issue 4 PCB)
S-4828-2A	1 of 1	2	03/06	Xgard Oxygen & Toxic Sensor PCB Drawing
S-4829-CL	1	2	06/04	Toxic Amp. PCB – Component Location
S-4829-PCA	1	2	06/04	Toxic Amp. PCB – Component Side Copper
S-4829-PCB	1	2	06/04	Toxic Amp. PCB – Solder Side Copper

## 20 Certificate History

Certificate No.	Date	Comments
Baseefa04ATEX0115	7 June 2004	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 1997 + Amendments 1 & 2 and EN50020: 2002 is documented in Test Report No. 02(C)0446.
Baseefa04ATEX0115/1	21 June 2004	To permit minor electrical changes not affecting the Intrinsic Safety assessment. Project 04/0463.
Baseefa04ATEX0115/2	20 October 2006	To permit changes to some drawings, the use of an alternative enclosure base, the introduction of a modification drawing for issue 3 Oxygen amplifier PCBs, and the introduction of issue 4 Oxygen amplifier PCBs, The Ci for their connection terminals reduces to 13.2nF. An input limit for Ii has been added. Report No: 06(C)0332, Project No: 06/0332
Baseefa04ATEX0115/3X	12 November 2007	To permit a change in the enclosure material. A special condition for safe use is added to address the potential electrostatic charging hazard. Report No: None, Project No: 07/0555



<b>Certificate No.</b>	<b>Date</b>	<b>Comments</b>
Baseefa04ATEX0115/4X	17 February 2011	To confirm that the design meets the requirements of EN60079-0: 2009 and EN60079-11: 2007. Report No: GB/BAS/ExTR11.0029/00, Project No: 10/1013
Baseefa04ATEX0115/5X	15 April 2011	To permit the use of a stainless steel enclosure. Report No: GB/BAS/ExTR11.0097/00, Project No: 11/0291.
Baseefa04ATEX0115/6X	03 December 2012	To confirm that the design meets the requirements of EN60079-0: 2012 and EN60079-11: 2012. Report No: GB/BAS/ExTR12.0315/00, Project No: 12/0885
Baseefa04ATEX0115X Issue 7	12 April 2018	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN60079-0: 2012 + A11: 2013, including the revision of the equipment marking in accordance with these standards. A number of minor drawing changes not affecting the existing assessment are introduced. The company address is changed from: 2 Blacklands way, Abingdon business park, Abingdon, Oxfordshire OX14 1DY, to 172 Brook Drive, Milton Park, Abingdon, OX14 4SD. Report: GB/BAS/ExTR16.0340/00 for Project 16/0384.

For drawings applicable to each issue, see original of that issue.



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: **Baseefa04ATEX0115/6X**

4 Equipment or Protective System: **Xgard Gas Detector**

5 Manufacturer: **Crowcon Detection Instruments Limited**

6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxfordshire  
OX14 1DY**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0115 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 Item 9 of the original Certificate is replaced by “Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0: 2012 EN 60079-11: 2012**

except in respect of those requirements listed at item 18 of the Schedule.”

9 The marking of the equipment has changed from the original Certificate and shall include the following:

**⊕ II 1G Ex ia IIC T4 Ga (-40°C ≤T<sub>a</sub> ≤+55°C)**

This certificate shall be held with the original certificate and may only be reproduced in its entirety, without any change, schedule included.


Baseefa Customer Reference No. **0249**

Project File No. **12/0885**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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Baseefa is a trading name of Baseefa Ltd  
Registered in England No. 4305578. Registered address as above.

  
R S SINCLAIR  
DIRECTOR  
On behalf of  
Baseefa





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## Schedule

14

Certificate Number Baseefa04ATEX0115/6X

### 15 Description of the variation to the Equipment or Protective System

#### Variation 6.1

To permit minor label changes not affecting the original assessment.

#### Variation 6.2

To confirm the current designs of the Xgard Gas Detector have been review against the requirements of EN 60079-0: 2012 and EN 60079-11: 2012 in respect of the differences from EN 60079-0: 2009 and EN 60079-11: 2007 and none of the difference affect the equipment.

### 16 Report Number

GB/BAS/ExTR12.0315/00

### 17 Specific Conditions of Use

None additional to those listed previously

### 18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

### 19 Drawings and Documents

Number	Sheet	Issue	Date	Description
4805	1 of 1	08	30/11/2012	Xgard IS St. Steel Label
5369-CERT	1 of 1	03	30/11/2012	Xgard ATEX Intrinsically Safe Certification Label

The above drawing is associated and held with IECEx Certificate No. IECEx BAS 05.0042X Iss. 5



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **Baseefa04ATEX0115/5X**
- 4 Equipment or Protective System: **Xgard Gas Detector**
- 5 Manufacturer: **Crowcon Detection Instruments Limited**
- 6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon,  
OX14 1DY**

- 7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0015 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **0249**

Project File No. **11/0291**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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Baseefa is a trading name of Baseefa Ltd  
Registered in England No. 4305578. Registered address as above.

A handwritten signature in black ink, appearing to read "R S Sinclair".  
**R S SINCLAIR**  
DIRECTOR  
On behalf of  
Baseefa



13

### Schedule

14

Certificate Number Baseefa04ATEX0115/5X

15 Description of the variation to the Equipment or Protective System

#### Variation 5.1

To permit the use of stainless steel as an enclosure option.

The special condition of safe use relating to the potential electrostatic ignition risk of a plastic enclosure does not apply to this version.

16 Report Number

GB/BAS/ExTR11.0097/00

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
4805	1 of 1	07	11/03/2011	Xgard IS St. Steel Label
MCAD-000080	1 of 1	01	11/03/2011	Xgard IS St. Steel GA

These drawings are common to, and held with, IECEx BAS 05.0042X/4





1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**  
**Directive 94/9/EC**

3 Supplementary EC - Type **Baseefa04ATEX0115/4X**  
Examination Certificate Number:

4 Equipment or Protective System: **Xgard Gas Detector**

5 Manufacturer: **Crowcon Detection Instruments Limited**

6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon,  
OX14 1DY**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0115 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.


Baseefa Customer Reference No. **0249**

Project File No. **10/1013**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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R.S SINCLAIR  
DIRECTOR  
On behalf of  
Baseefa



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## Schedule

14

Certificate Number Baseefa04ATEX0115/4X

15 Description of the variation to the Equipment or Protective System

### Variation 4.1

To confirm that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0:2006, EN 60079-0:2009 and EN 60079-11:2007 in respect of the differences from EN 50014:1997 + Amds 1 & 2 and EN 50020:2002 and that none of these differences affect this equipment.

The equipment is now marked:

Ex ia IIC T4 Ga

16 Report Number

GB/BAS/ExTR11.0029/00

17 Special Conditions for Safe Use

None additional to those listed previously.

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
5369-CERT	1 of 1	2	01/2011	Xgard Intrinsically Safe Certification Label

This drawing is common to, and held with, IECEx BAS 05.0042X Iss 3



1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **Baseefa04ATEX0115/3X**
- 4 Equipment or Protective System: **Xgard Gas Detector**
- 5 Manufacturer: **Crowcon Detection Instruments Limited**
- 6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon,  
OX14 1DY**

- 7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0115 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. 0249

Project File No. 07/0555

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

A handwritten signature in black ink, appearing to read "R S Sinclair".

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Baseefa is a trading name of Baseefa (2001) Ltd  
Registered in England No. 4305578 at the above address

**R S SINCLAIR**  
**DIRECTOR**  
On behalf of  
Baseefa (2001) Ltd.





13

### Schedule

14

Certificate Number Baseefa04ATEX0115/3X

15 **Description of the variation to the Equipment or Protective System**

**Variation 3.1**

To permit a change in the enclosure material to plastic; the certification label is marked with a electrostatic hazard warning and a Special Condition of Safe Use is introduced below for the plastic enclosure version to address the potential electrostatic hazard.

16 **Report Number**

None.

17 **Special Conditions for Safe Use**

1. The apparatus has a plastic enclosure which constitutes a potential electrostatic hazard. The enclosure must only be cleaned with a damp cloth.

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
5365-CERT (Replaces Dwg No. CON-4710-A1)	1 of 1	1	OCT/07	Type 1 Xgard IS Enclosure
5369-CERT (Replaces Dwg No. CON-4805-A4)	1 of 1	1	10/07	Xgard ATEX Intrinsically Safe Certification Label

Drawings are associated and held with IECEx BAS 05.0042X Issue 2.

Certificate Number  
Baseefa04ATEX0115/2



Issued 20 October 2006  
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<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
S-4825-CERTIFIED (Replaces S-4825-CD)	4	1/5/06	Xgard Oxygen Head (Circuit Diagram & Certified Parts List)
S-5675 issue 1 CERTIFIED	1	20/02/06	Xgard Oxygen & Toxic Sensor (Circuit Diagram)
S-4828-2A (Replaces S-4828-PCA, S-4828-PCB & S-4828-CL)	2	03/06	Xgard Oxygen & Toxic Sensor PCB Drawing



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## Schedule

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Certificate Number Baseefa04ATEX0115/2

15 Description of the variation to the Equipment or Protective System

### Variation 2.1

To permit changes to some drawings, the use of an alternative enclosure base, the introduction of a modification drawing for issue 3 Oxygen Amplifier PCBs, and the introduction of issue 4 Oxygen Amplifier PCBs. With the modified or later issue Oxygen Amplifier PCBs, the  $C_i$  for their connection terminals reduces to 13.2nF. An input limit for  $I_i$  has been added.

#### Input / output parameters:

##### Toxic Detector, Terminals + & -

$U_i$  = 28V  
 $I_i$  = 300mA  
 $P_i$  = 1.2W  
 $C_i$  = 14.4nF  
 $L_i$  = 28μH

##### Oxygen Detector, Terminals + & -

$U_i$  = 28V  
 $I_i$  = 300mA  
 $P_i$  = 1.2W  
 $C_i$  = 13.2nF  
 $L_i$  = 0

16 Report Number

06(C)0332

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Issue	Date	Description
CON-4710-A1	8	02/06	Xgard General Assembly
CON-4782-A1	1	Oct-06	Xgard IS Enclosure Base Machining Detail - Metric (Alternative to CON-4722-A1)
S-4790-1A	1	5/06	Xgard Oxygen Amplifier PCB Modification DCP2122 for Issue 3 PCBs
S-4830 Iss 2 Sheet 1	4	01/05/06	Xgard Oxygen Amplifier Assy Top (Issue 4 PCB)
S-4830 Iss 2 Sheet 2	4	01/05/06	Xgard Oxygen Amplifier Silkscreen Top (Issue 4 PCB)
S-4830 Iss 2 Sheet 3	4	01/05/06	Xgard Oxygen Amplifier Top Copper (Issue 4 PCB)
S-4830 Iss 2 Sheet 4	4	01/05/06	Xgard Oxygen Amplifier Bottom Copper (Issue 4 PCB)





1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

- 3 Supplementary EC - Type Examination Certificate Number: **Baseefa04ATEX0115/2**
- 4 Equipment or Protective System: **Xgard Gas Detector**
- 5 Manufacturer: **Crowcon Detection Instruments Limited**
- 6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon,  
OX14 1DY**
- 7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa04ATEX0115 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.


This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. 0249

Project File No. 06/0332

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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P. DICKIE  
**R/S SINCLAIR**  
**DIRECTOR**  
On behalf of  
Baseefa (2001) Ltd.

Certificate Number  
Baseefa04ATEX0115/1



Issued 21<sup>st</sup> June 2004  
Page 1 of 2

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1 **SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

3 Supplementary EC - Type Examination Certificate Number: **Baseefa04ATEX0115/1**

4 Equipment or Protective System: **Xgard Gas Detector**

5 Manufacturer: **Crowcon Detection Instruments Limited**

6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon,  
OX14 1DY**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa04ATEX0015 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0249

Project File No. 04/0463

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa (2001) Ltd.**  
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**R S SINCLAIR**  
**DIRECTOR**  
On behalf of  
Baseefa (2001) Ltd.



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### Schedule

14

Certificate Number Baseefa04ATEX0115/1

15 Description of the variation to the Equipment or Protective System

**Variation 1.1**

To permit minor electrical changes to the Toxic gas detector which do not affect the original intrinsic safety assessment.

16 Report Number

None

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
S-4829-CL	1	2	06/04	Toxic Amp. PCB – Component Location
S-4829-PCA	1	2	06/04	Toxic Amp. PCB – Component Side Copper
S-4829-PCB	1	2	06/04	Toxic Amp. PCB – Solder Side Copper
S-4824-CD	1	3	11/06/04	Toxic (non-bias) Head Circuit Diagram





1 **EC - TYPE EXAMINATION CERTIFICATE**

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres  
Directive 94/9/EC**

3 EC - Type Examination Certificate Number: **Baseefa04ATEX0115**

4 Equipment or Protective System: **Xgard Gas Detector**

5 Manufacturer: **Crowcon Detection Instruments Limited**

6 Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, Oxon, OX14 1DY**

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa (2001) Ltd. Notified body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. 02(C)0446

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 50014: 1997 + Amendments 1 & 2**      **EN 50020: 2002**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include the following :

**⊕ II 1 G EEx ia IIC T4 (-40°C ≤ Ta ≤ +55°C)**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. 0249

Project File No. 02/0446

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

**Baseefa (2001) Ltd.**  
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**R S SINCLAIR**  
**DIRECTOR**  
On behalf of  
Baseefa (2001) Ltd.



13 **Schedule**

14 **Certificate Number Baseefa04ATEX0115**

15 **Description of Equipment or Protective System**

The Xgard Gas Detector is a loop-powered gas detector which can be used to detect Toxic gases or Oxygen depending upon the circuitry and electrochemical cell used and provide a 4-20mA output signal. It comprises an electrochemical cell (and accompanying sensor PCB) and an amplifier PCB mounted within an epoxy powder-coated aluminium alloy or stainless steel enclosure.

Electrical connections to the amplifier PCB are made to a terminal block with cable access to the enclosure being provided by a threaded entry hole. Access to the terminal block and PCB is gained by a removable threaded lid with an O-ring seal.

**Input / output parameters:**

Toxic Detector, Terminals + & -

$U_i = 28V$                        $C_i = 14.4nF$   
 $P_i = 1.2W$                       $L_i = 28\mu H$

Oxygen Detector, Terminals + & -

$U_i = 28V$                        $C_i = 15.6nF$   
 $P_i = 1.2W$                       $L_i = 0$

16 **Report Number**

02(C)0446

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
CON-4805-A4	1	3	05/04	Xgard Certification Label
CON-4710-A1	1	5	06/04	Xgard General Assembly
S-4829-PCA	1	1	12/03	Toxic Amp. PCB – Component Side Copper
S-4829-PCB	1	1	12/03	Toxic Amp. PCB – Solder Side Copper
S-4829-CL	1	1	12/03	Toxic Amp. PCB – Component Location
S-4824-CD	1	2	28/04/03	Toxic (non-bias) Head – Main & Sensor PCBs
S-4828-PCA	1	1	04/04	Toxic/Oxygen Sensor PCB – Component Side Copper
S-4828-PCB	1	1	04/04	Toxic/Oxygen Sensor PCB – Solder Side Copper
S-4828-CL	1	1	04/04	Toxic/Oxygen Sensor PCB – Component Location
S-4825-CD	1	2	28/04/03	Oxygen Head – Oxygen Amplifier PCB
CON-4749-A4	1	1	05/04	Xgard Internal Serial No. Label