



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_a ≤+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.

Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
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

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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



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- 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**

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Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
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



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Schedule

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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



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

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

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**

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Baseefa

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa Ltd
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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



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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.

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
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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Number	Issue	Date	Description
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)



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- 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.


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Baseefa Customer Reference No. 0249

Project File No. 06/0332

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Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com
Baseefa is a trading name of Baseefa (2001) Ltd
Registered in England No. 4305578 at the above address


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

Certificate Number
Baseefa04ATEX0115/1



Issued 21st June 2004
Page 1 of 2

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 **Baseefa04ATEX0115/1**
 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. 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.

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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.

Health and Safety Laboratory Site, Harpur Hill,
Buxton, Derbyshire SK17 9JN
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216
e-mail info@baseefa2001.biz web site www.baseefa2001.biz
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton,
Derbyshire, SK17 9BJ

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



13

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



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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

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Baseefa (2001) Ltd.
Health and Safety Laboratory Site, Harpur Hill,
Buxton, Derbyshire SK17 9JN
Telephone +44 (0) 1298 28255 Fax +44 (0) 1298 28216
e-mail info@baseefa2001.biz web site www.baseefa2001.biz
Registered in England No. 4305578 at 13 Dovedale Crescent, Buxton,
Derbyshire, SK17 9BJ

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