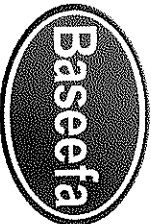


Certificate Number
Baseefa09ATEX0206X/4



Issued 24 April 2013
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 Examination Certificate Number: Baseefa09ATEX0206X/4

4 Equipment or Protective System: IR 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. Baseefa09ATEX0206X 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.

Baseefa Customer Reference No. **0249**

Project File No. **12/0914**

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.baseefa.com/terms-and-conditions.asp>. 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.

SGS Baseefa Limited

Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ

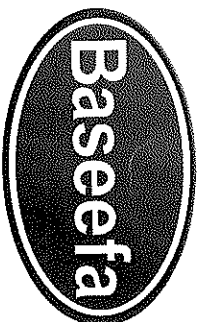
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601
e-mail info@baseefa.com web site www.baseefa.com

Registered in England No. 4305578.
Registered address: Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN

R S SINCLAIR
GENERAL MANAGER

On behalf of SGS Baseefa Limited

Certificate Number
Baseefa09ATEX0206X/3



Issued 2 May 2012
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 Examination Certificate Number: Baseefa09ATEX0206X/3

4 Equipment or Protective System: IR 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. Baseefa09ATEX0206X 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. 12/0221

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

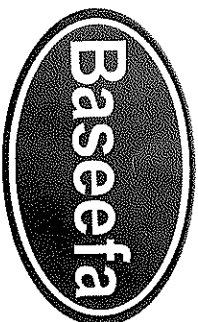
Registered in England No. 4305578. Registered address as above.

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 Baseefa09ATEX0206X/3

15

Description of the variation to the Equipment or Protective System

Variation 3.1

To permit an alternative optional cement to be used on the equipment not affecting the original assessment.

16

Report Number

Baseefa Certification Report GB/BAS/EXTR12.0063/00

17 **Specific Conditions of Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

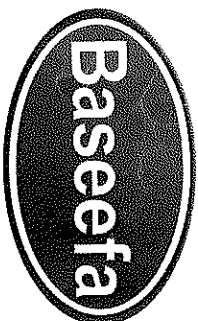
Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

| Number | Sheet | Issue | Date | Description |
|---------------|--------------|--------------|-------------|-----------------------------------|
| 6651-CERT | 1 of 1 | 15 | 12/03/2012 | IREX / IRmax IIC General Assembly |

The above drawing is common to Baseefa09ATEX0220X, IECEX BAS 09.0104X and IECEX BAS 09.0109X; a copy is held on both IECEX BAS 09.0104X & IECEX BAS 09.0109X.

Certificate Number
Baseefa09ATEX0206X/2



Issued 15 November 2011
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 Examination Certificate Number: Baseefa09ATEX0206X/2

4 Equipment or Protective System: IR 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. Baseefa09ATEX0206X 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. **10/0981**

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,

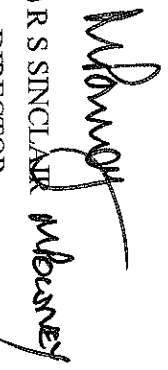
Buxton, Derbyshire SK17 9RZ

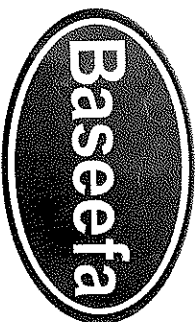
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

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.


P R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13 **Schedule**

14 **Certificate Number Baseefa09ATEX0206X/2**

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

Variation 2.1

To confirm the current design of the IR Gas Detector has been additionally assessed against the requirements of EN 60079-0: 2009 and EN 60079-31: 2009. As a result of this assessment, the equipment is now additionally marked: -

⊕ II 2D Ex tb IIC T135°C Db (-40°C ≤ T_a ≤ +75°C)

With exception of the addition of this marking, the input parameters and design of the equipment remain unchanged and the previous flameproof certification is not affected by this change.

16 **Report Number**

Baseefa Certification Report GB/BAS/ExTR11.0292/00

17 **Specific Conditions of Use**

None additional to those listed previously

18 **Essential Health and Safety Requirements**

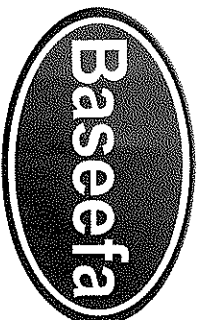
Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

| Number | Sheet | Issue | Date | Description |
|---------------|--------------|--------------|-------------|----------------------------------|
| 6690-CERT | 1 of 1 | 04 | 14/11/2011 | IREX / IRMAX Certification Label |

This is common to and held with IECEx BAS 09.0106X.

Certificate Number
Baseefa09ATEX0206X/1



Issued 26 October 2010
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 Examination Certificate Number: Baseefa09ATEX0206X/1

4 Equipment or Protective System: An IR 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. Baseefa09ATEX0206X 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. **10/0788**

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

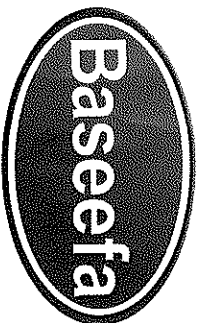
Baseefa is a trading name of Baseefa Ltd

Registered in England No. 4305578. Registered address as above.

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

P R S SINCLAIR
DIRECTOR

On behalf of
Baseefa



13 **Schedule**

14 Certificate Number Baseefa09ATEX0206X/1

15 Description of the variation to the Equipment or Protective System

Variation 1.1

To permit the reformating, and therefore up issue, of the certification drawings. The physical design of the IR Gas Detector is not altered in any way.

16 Report Number

Baseefa Certification Report GB/BAS/EXTR10.0243/00

17 Special Conditions for Safe Use

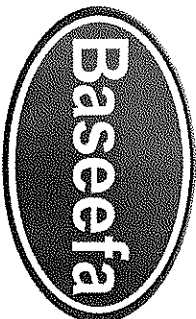
None additional to those listed previously

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 |
|-----------|--------|-------|------------|---|
| 6651-CERT | 1 of 1 | 13 | 06/09/2010 | IREX IIC General Assembly (IR Gas Detector basic assembly with options) |



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: Baseefa09ATEX0206X

4 Equipment or Protective System: IR 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, 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. **GB/BAS/EXTR09.0155/00**

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

EN 60079-0: 2009
EN 60079-1: 2007

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 2 G Ex d IIC T4 Gb (-40°C ≤ Ta ≤ +75°C), or T6 Gb(-40°C ≤ Ta ≤ +50°C)

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

Baseefa Customer Reference No. 0249

Project File No. 09/0230

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.

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

Baseefa

R S SINCLAIR

Rockhead Business Park, Staden Lane,

Buxton, Derbyshire SK17 9RZ

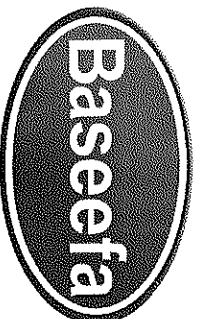
Telephone +44 (0) 1298 766600 Fax +44 (0) 1298 766601

e-mail info@baseefa.com web site www.baseefa.com

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DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number Baseefa09ATEX0206X

15

Description of Equipment or Protective System

The **IR Gas Detector** comprises a stainless steel housing with a transparent sapphire detector window fitted to the end and clamped in place. A protective weatherproof cover manufactured in an anti-static plastic material is fitted over the sapphire detector window. The housing contains optics and a stacked PCB assembly. At the opposite end to the window is an M50 threaded stainless steel endplate, secured against unintentional removal by a securing plate fixed in position by cap screws with an internal hexagon head.

The internal circuits of the IR Gas Detector circuits are rated up to a maximum of 32V and 5W.

Two cable entry holes are provided as specified on the certified drawings for the accommodation of a flameproof cable entry device, with or without the interposition of a flameproof thread adapter. One cable entry is M20, the other is ½" NPT. The thread form for each cable entry is identified on the body of the IR Gas Detector by etched markings.

The cable entry device and thread adapter shall be suitable for the equipment, the cable and the conditions of use and shall be certified as Equipment (not a Component) under an EC-Type Examination Certificate to Directive 94/9/EC.

Any unused cable entry holes must be fitted with a suitable flameproof stopping plug certified as Equipment (not a Component) under an EC-Type Examination Certificate to Directive 94/9/EC.

16 **Report Number**

Baseefa Certification Report GB/BAS/EXTR09.0155/00

17 **Special Conditions for Safe Use**

1. The equipment must be earthed using the cable gland and steel armoured cable.

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 | Issue | Date | Description |
|---------------|--------------|-------------|---|
| *6651-CERT | 12 | Apr-10 | IREX IIC General Assembly (IR Gas Detector basic assembly with options) |
| 6690-CERT | 2 | 02/10 | IREX / IRMAX Certification Label (IR Gas Detector) |

6651-CERT is common to Baseefa09ATEX0220X, IECEX BAS 09.0104X and IECEX BAS 09.0109X; a copy is held on both IECEX BAS 09.0104X and IECEX BAS 09.0109X.

6690-CERT is common to, and held with, IECEX BAS 09.0109X