

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: **Baseefa05ATEX0187 – Issue 12**

4 Equipment or Protective System: **TETRA 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 4SD**

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 Reports listed at Item 20.

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

EN 60079-0: 2012 EN 60079-1: 2007 EN 60079-11: 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 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 ia d IIC T4 Gb (-20°C ≤Ta ≤+55°C)

Baseefa Customer Reference No. **0249**

Project File No. **13/0719**

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

13

Schedule

14

Certificate Number Baseefa05ATEX0187 – Issue 12

15 Description of Equipment or Protective System

The TETRA 3 is a three bay four gas monitor, designed to monitor the concentration of oxygen (deficiency), toxic or flammable gas, and provide visual, audible and physical (vibrator) warnings if preset limits are exceeded. The presence of any sensor (known as an i-Module) is optional and the maximum possible is one flammable i-Module, one oxygen i-Module and one toxic i-Module. The toxic i-Module may contain a dual sensor to measure two toxic gases.

It comprises electronic circuits on printed circuit boards, a display, various LED indicators, a pump, a vibrator, a sounder and a rechargeable lithium-ion battery, all contained in a plastic enclosure providing a degree of protection of at least IP20.

The permitted sensors used in the i-Modules are specified in the Crowcon documentation.

The flammable sensor used is either type VQ500 series by E2V Technologies, to Certificate SIRA01ATEX1073U, or 4P series by City Technology to Certificate SIRA01ATEX1205U, with a Code of Ex d IIC Gb and a maximum permitted ambient temperature of +55°C. These sensors are certified to EN 60079-0:2009 and EN 60079-1:2007.

The apparatus is not designed for use in oxygen enriched atmospheres.

Charging conditions:

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using the following chargers:

Crowcon desktop charger part number C011018

Crowcon desktop charger / interface part number C011019

Alternatively, any Crowcon charger with an output (U_m) of 9V may be used to charge the apparatus, although when both charging and data communications are required, only charger / interface part number C011019 may be used.

16 Report Number

GB/BAS/ExTR14.0249/00

17 Specific Conditions of 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

The following drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0059:

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
P-5820-A2	1 of 1	6	10/13	TETRA 3 Certification GA

Current drawings also associated with this certificate:

Number	Sheet	Issue	Date	Description
5800-CD-CERT	1 & 2	3	21/01/2013	Tetra 3 Main Board
5832-PL-CERT	1 of 1	6	27/11/2012	Tetra3 (Mini Tetra) Main Board Certification Parts List
5840-PCB-CERT	1 to 8	4	27/11/2012	Tetra3 Main Board
P-5887	1 of 1	02	31/08/2012	T3 Battery Assembly Drawing

Number	Sheet	Issue	Date	Description
-5488-CD-CERT	1 of 1	4	16/11/2012	Mini I-module Toxic
5493-PL-CERT	1 & 2	8	16/11/12	Toxic I-Module Certification Parts List
-5518-CD-CERT	1 of 1	4	16/11/2012	I-Module Dual Toxic (COSH)
5844-PL-CERT	1 & 2	3	16/11/12	Dual Toxic i-Module Certification Parts List
-5490-CD-CERT	1 of 1	4	16/11/2012	I-Module Oxygen
P-5494-PL-CERT	1 of 1	5	16/11/12	Oxygen I-Module Certification Parts List
5492-PL-CERT	1 of 1	9	Jan 2013	Flammable I-Module Certification Parts List
P-5516	1 of 1	4	08.09	Hybrid 1B
P-5825-A4	1 of 1	5	08.09	Tetra 3 ATEX & IECEx Certification Label
5567-CD-CERT	1 of 1	1	29.10.09	Hybrid 3
5567-PCB-CERT	1 of 1	1	29.10.09	Hybrid 3 PCB Drawing
5567-PL-CERT	1 of 1	1	28.10.09	Crowcon Type 3 Hybrid Certification Parts List
P-5820-A2	1 of 1	4	06.06	Tetra 3 Certification GA
P-5829-A4	1 of 1	1	12.05	Tetra 3 Ribbon Cable Insulator
P-5847-A4	1 of 1	1	10.05	Tetra 3 Main Board Insulating Label
5407-CERT	1 of 1	7	10.07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	1 of 1	4	07.06	Gasman Type 1A Hybrid Mech And Tracking Details
P-5517	1 of 1	3	01.06	Hybrid 1A
5411-CERT	1 of 1	6	10.07	Crowcon Type 1B ("Encapsulated Fuse" Hybrid Certification Parts List
P-5410-A3	1 of 1	3	07.06	Gasman Type 1B Hybrid Mech And Tracking Details
P-5801	1 of 1	1	12.10.05	Tetra 3 iModule Terminal Board (Mini-Tetra)
P-5836-A4	1 of 1	1	17.10.05	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1 of 1	1	10.05	Tetra 3 iModule Terminal PCB & Track Details
P-5802	1 – 15	2	27.10.06	Tetra 3 Display Board (Mini-Tetra)
P-5834-A4	1 of 1	2	04.08.06	Mini-Tetra (Tetra 3) Display Board Certification Parts List
P-5842-A2	1 of 1	2	11.06	Tetra 3 Display PCB & Track Details
P-5486	1 of 1	4	22.09.06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5475	1 – 7	3	14.09.06	Flammable i-Module board
P-5476-A3	1 of 1	2	06.05	Oxygen i-Module PCB And Track Details
P-5477-A3	1 of 1	2	06.05	Toxic i-Module PCB And Track Details
P-5526-A3	1 of 1	1	10.05	COSH i-Module PCB And Track Details
P-5520-PL	1 of 1	1	01.02.06	Alphasense COSH iModule Adapter
P-5527-A3	1 of 1	1	10.05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P-5821-A2	1 of 1	2	10.05	Tetra 3 Charger Assembly
P-5817	1 of 1	5	12.03.07	Tetra 3 (Mini-Tetra) Charger
P-5843	1 – 6	4	11.01.07	Tetra 3 Charger PCB
P-5838-A4	1 of 1	4	12.03.07	Tetra 3 Charger Certification Parts List
P-5437	1 of 1	1	20.12.04	Gasman Interface PCB
P-5438-A3	1 of 1	1	02.05	Gasman External Interface PCB And Track Details
P-5439-A4	1 of 1	1	03.03.05	Gasman External Interface Certification Parts List
P-5823-A4	1 of 1	2	02.07	Mini Tetra Charger Label

20 Certificate History

Certificate No.	Date	Comments
Baseefa05ATEX0187	21 December 2005	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 1997 + Amd. 1 & 2, EN 50018: 2000 and EN 50020: 2002 is documented in Test Report No. 05(C)0554.
Baseefa05ATEX0187/1	10 February 2006	To permit changes to drawings to enable the IR i-Module to be listed separately from the flammable i-Module. This is a documentation change and does not affect the safety assessment of the apparatus.
Baseefa05ATEX0187/2	11 April 2006	To permit a change of encapsulants in the hybrid circuits.
Baseefa05ATEX0187/3	12 July 2006	To permit the use of an alternative model name, Combi-Mate 3 , minor additions to the oxygen and toxic i-Module parts lists and minor changes to the GA, Hybrid 1A and charger PCB.
Baseefa05ATEX0187/4	15 September 2006	To permit minor changes to drawings and the use of alternative sounders.
Baseefa05ATEX0187/5	15 November 2006	To permit changes to the display PCB to form an issue two version and the addition of a conformal coating in a localised area of existing issue one PCBs.
Baseefa05ATEX0187/6	8 December 2006	To permit minor changes to the desktop charger units with part numbers C011018 and C011019. To permit the replacement of desktop charger C011018 with any Crowcon charger with an output (U_m) of 9V. When both charging and data communication are required, only charger / interface part number C011019 may be used. As documented in Test Report No. 06(C)1022.
Baseefa05ATEX0187/7	4 July 2007	To permit minor changes to drawings and minor modification to circuits.
Baseefa05ATEX0187/8	12 June 2008	To permit use of alternative encapsulants in the hybrid circuits.
Baseefa04ATEX0187 Issue 9	30 November 2009	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0:2004 and EN 60079-11:2007. The marking meets the requirements of IEC 60079-0:2007. This issue also incorporates the addition of the Hybrid 3 as an optional Hybrid module. Certification Drawings 5896, P-5867-CERT, P-5879-CERT and P-5888-2A are also made obsolete.
Baseefa04ATEX0187 Issue 10	2 December 2011	This issue of the certificate confirms the current design meets the requirements of EN 60079-0:2009 and EN 60079-1:2007. The marking code is unchanged.

Certificate No.	Date	Comments
Baseefa05ATEX0187 Issue 11	6 February 2013	<p>This issue of the certificate confirms the current design meets the requirements of EN 60079-0: 2012 and EN 60079-11: 2012. This issue also incorporates the following changes: -</p> <ul style="list-style-type: none">i) To permit the fitting of an alternative battery in the equipment.ii) To permit minor changes to the main PCB not affect the original assessment.iii) To permit minor component changes to the i-Modules not affecting the original assessment.iv) To permit minor drawing changes not affecting the original assessment. As a result of the drawing changes, previous Drawing No's P-5492-A4, 5832-PL, P-5887-A2, P-5800, P-5840-A2, P-5490, P-5494-A4, P-5488, P-5493-A4, P-5518 & P-5844-A4 were replaced. <p>The above test and assessment is documented in IECEX ExTR No. GB/BAS/ExTR13.0035/00.</p>
Baseefa05ATEX0187 Issue 12	11 September 2014	<p>To permit minor drawing changes not affecting the original assessment.</p> <p>The assessment is documented in IECEX ExTR No. GB/BAS/ExTR14.0249/00.</p>

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



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: **Baseefa05ATEX0187 – Issue 11**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, 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's. **GB/BAS/ExTR13.0035/00**

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

EN 60079-0: 2012 EN 60079-1: 2007 EN 60079-11: 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 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 ia d IIC T4 Gb (-20°C ≤Ta ≤+55°C)

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

Baseefa Customer Reference No. **0249**

Project File No. **12/1031**

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



13

Schedule

14

Certificate Number Baseefa05ATEX0187 – Issue 11

15 Description of Equipment or Protective System

The Tetra 3 is a three bay four gas monitor, designed to monitor the concentration of oxygen (deficiency), toxic or flammable gas, and provide visual, audible and physical (vibrator) warnings if preset limits are exceeded. The presence of any sensor (known as an i-Module) is optional and the maximum possible is one flammable i-Module, one oxygen i-Module and one toxic i-Module. The toxic i-Module may contain a dual sensor to measure two toxic gases.

It comprises electronic circuits on printed circuit boards, a display, various LED indicators, a pump, a vibrator, a sounder and a rechargeable lithium-ion battery, all contained in a plastic enclosure providing a degree of protection of at least IP20.

The permitted sensors used in the i-Modules are specified in the Crowcon documentation.

The apparatus is not designed for use in oxygen enriched atmospheres.

Charging conditions:

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using the following chargers:

Crowcon desktop charger part number C011018

Crowcon desktop charger / interface part number C011019

Alternatively, any Crowcon charger with an output (U_m) of 9V may be used to charge the apparatus, although when both charging and data communications are required, only charger / interface part number C011019 may be used.

16 Report Number

GB/BAS/ExTR13.0035/00

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

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
5800-CD-CERT	1 & 2	3	21/01/2013	Tetra 3 Main Board
5832-PL-CERT	1 of 1	6	27/11/2012	Tetra3 (Mini Tetra) Main Board Certification Parts List
5840-PCB-CERT	1 to 8	4	27/11/2012	Tetra3 Main Board
P-5887	1 of 1	02	31/08/2012	T3 Battery Assembly Drawing
-5488-CD-CERT	1 of 1	4	16/11/2012	Mini I-module Toxic
5493-PL-CERT	1 & 2	8	16/11/12	Toxic I-Module Certification Parts List
-5518-CD-CERT	1 of 1	4	16/11/2012	I-Module Dual Toxic (COSH)
5844-PL-CERT	1 & 2	3	16/11/12	Dual Toxic i-Module Certification Parts List
-5490-CD-CERT	1 of 1	4	16/11/2012	I-Module Oxygen
P-5494-PL-CERT	1 of 1	5	16/11/12	Oxygen I-Module Certification Parts List



Number	Sheet	Issue	Date	Description
5492-PL-CERT	1 of 1	9	Jan 2013	Flammable I-Module Certification Parts List

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0059 Iss. 10

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
P-5516	1 of 1	4	08.09	Hybrid 1B
P-5825-A4	1 of 1	5	08.09	Tetra 3 ATEX & IECEx Certification Label
5567-CD-CERT	1 of 1	1	29.10.09	Hybrid 3
5567-PCB-CERT	1 of 1	1	29.10.09	Hybrid 3 PCB Drawing
5567-PL-CERT	1 of 1	1	28.10.09	Crowcon Type 3 Hybrid Certification Parts List
P-5820-A2	1 of 1	4	06.06	Tetra 3 Certification GA
P-5829-A4	1 of 1	1	12.05	Tetra 3 Ribbon Cable Insulator
P-5847-A4	1 of 1	1	10.05	Tetra 3 Main Board Insulating Label
5407-CERT	1 of 1	7	10.07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	1 of 1	4	07.06	Gasman Type 1A Hybrid Mech And Tracking Details
P-5517	1 of 1	3	01.06	Hybrid 1A
5411-CERT	1 of 1	6	10.07	Crowcon Type 1B ("Encapsulated Fuse" Hybrid Certification Parts List
P-5410-A3	1 of 1	3	07.06	Gasman Type 1B Hybrid Mech And Tracking Details
P-5801	1 of 1	1	12.10.05	Tetra 3 iModule Terminal Board (Mini-Tetra)
P-5836-A4	1 of 1	1	17.10.05	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1 of 1	1	10.05	Tetra 3 iModule Terminal PCB & Track Details
P-5802	1 – 15	2	27.10.06	Tetra 3 Display Board (Mini-Tetra)
P-5834-A4	1 of 1	2	04.08.06	Mini-Tetra (Tetra 3) Display Board Certification Parts List
P-5842-A2	1 of 1	2	11.06	Tetra 3 Display PCB & Track Details
P-5486	1 of 1	4	22.09.06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5475	1 – 7	3	14.09.06	Flammable i-Module board
P-5476-A3	1 of 1	2	06.05	Oxygen i-Module PCB And Track Details
P-5477-A3	1 of 1	2	06.05	Toxic i-Module PCB And Track Details
P-5526-A3	1 of 1	1	10.05	COSH i-Module PCB And Track Details
P-5520-PL	1 of 1	1	01.02.06	Alphasense COSH iModule Adapter
P-5527-A3	1 of 1	1	10.05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P-5821-A2	1 of 1	2	10.05	Tetra 3 Charger Assembly
P-5817	1 of 1	5	12.03.07	Tetra 3 (Mini-Tetra) Charger
P-5843	1 – 6	4	11.01.07	Tetra 3 Charger PCB
P-5838-A4	1 of 1	4	12.03.07	Tetra 3 Charger Certification Parts List
P-5437	1 of 1	1	20.12.04	Gasman Interface PCB
P-5438-A3	1 of 1	1	02.05	Gasman External Interface PCB And Track Details
P-5439-A4	1 of 1	1	03.03.05	Gasman External Interface Certification Parts List
P-5823-A4	1 of 1	2	02.07	Mini Tetra Charger Label

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0059



20 Certificate History

Certificate No.	Date	Comments
Baseefa05ATEX0187	21 December 2005	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 1997 + Amd. 1 & 2, EN 50018: 2000 and EN 50020: 2002 is documented in Test Report No. 05(C)0554.
Baseefa05ATEX0187/1	10 February 2006	To permit changes to drawings to enable the IR i-Module to be listed separately from the flammable i-Module. This is a documentation change and does not affect the safety assessment of the apparatus.
Baseefa05ATEX0187/2	11 April 2006	To permit a change of encapsulants in the hybrid circuits.
Baseefa05ATEX0187/3	12 July 2006	To permit the use of an alternative model name, Combi-Mate 3 , minor additions to the oxygen and toxic i-Module parts lists and minor changes to the GA, Hybrid 1A and charger PCB.
Baseefa05ATEX0187/4	15 September 2006	To permit minor changes to drawings and the use of alternative sounders.
Baseefa05ATEX0187/5	15 November 2006	To permit changes to the display PCB to form an issue two version and the addition of a conformal coating in a localised area of existing issue one PCBs.
Baseefa05ATEX0187/6	8 December 2006	To permit minor changes to the desktop charger units with part numbers C011018 and C011019. To permit the replacement of desktop charger C011018 with any Crowcon charger with an output (U_m) of 9V. When both charging and data communication are required, only charger / interface part number C011019 may be used. As documented in Test Report No. 06(C)1022.
Baseefa05ATEX0187/7	4 July 2007	To permit minor changes to drawings and minor modification to circuits.
Baseefa05ATEX0187/8	12 June 2008	To permit use of alternative encapsulants in the hybrid circuits.
Baseefa04ATEX0187 Issue 9	30 November 2009	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0:2004 and EN 60079-11:2007. The marking meets the requirements of IEC 60079-0:2007. This issue also incorporates the addition of the Hybrid 3 as an optional Hybrid module. Certification Drawings 5896, P-5867-CERT, P-5879-CERT and P-5888-2A are also made obsolete.
Baseefa04ATEX0187 Issue 10	2 December 2011	This issue of the certificate confirms the current design meets the requirements of EN 60079-0:2009 and EN 60079-1:2007. The marking code is unchanged.



Certificate No.	Date	Comments
Baseefa05ATEX0187 Issue 11	6 February 2013	<p>This issue of the certificate confirms the current design meets the requirements of EN 60079-0: 2012 and EN 60079-11: 2012. This issue also incorporates the following changes: -</p> <ul style="list-style-type: none">i) To permit the fitting of an alternative battery in the equipment.ii) To permit minor changes to the main PCB not affect the original assessment.iii) To permit minor component changes to the i-Modules not affecting the original assessment.iv) To permit minor drawing changes not affecting the original assessment. As a result of the drawing changes, previous Drawing No's P-5492-A4, 5832-PL, P-5887-A2, P-5800, P-5840-A2, P-5490, P-5494-A4, P-5488, P-5493-A4, P-5518 & P-5844-A4 were replaced. <p>The above test and assessment is documented in IECEx ExTR No. GB/BAS/ExTR13.0035/00.</p>

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



1 **EC - TYPE EXAMINATION CERTIFICATE**

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

4 EC - Type Examination Certificate Number: **Baseefa05ATEX0187 – Issue 10**

5 Equipment or Protective System: **Tetra 3**

6 Manufacturer: **Crowcon Detection Instruments Ltd**

7 Address: **Abingdon, Oxfordshire, OX14 1DY**

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

9 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's. **GB/BAS/ExTR09.0168/00**

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

EN 60079-0: 2009 EN 60079-1: 2007 EN 60079-11: 2007

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

11 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.

12 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.

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

(Ex) II 2 G Ex ia d IIC T4 Gb (-20°C ≤ Ta ≤ +55°C)

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

Baseefa Customer Reference No. **0249**

Project File No. **11/0702**

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.

DB Sinclair
PP DBRE 11/12/11

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa



13

Schedule

14

Certificate Number Baseefa05ATEX0187 – Issue 9

15 Description of Equipment or Protective System

The Tetra 3 is a three bay four gas monitor, designed to monitor the concentration of oxygen (deficiency), toxic or flammable gas, and provide visual, audible and physical (vibrator) warnings if preset limits are exceeded. The presence of any sensor (known as an i-Module) is optional and the maximum possible is one flammable i-Module, one oxygen i-Module and one toxic i-Module. The toxic i-Module may contain a dual sensor to measure two toxic gases.

It comprises electronic circuits on printed circuit boards, a display, various LED indicators, a pump, a vibrator, a sounder and a rechargeable lithium-ion battery, all contained in a plastic enclosure providing a degree of protection of at least IP20.

The permitted sensors used in the i-Modules are specified in the Crowcon documentation.

The apparatus is not designed for use in oxygen enriched atmospheres.

Charging conditions:

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using the following chargers:

Crowcon desktop charger part number C011018

Crowcon desktop charger / interface part number C011019

Alternatively, any Crowcon charger with an output (U_m) of 9V may be used to charge the apparatus, although when both charging and data communications are required, only charger / interface part number C011019 may be used.

16 Report Number

None.

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

New drawings submitted for this issue of certificate.

None.

Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
P-5492-A4	1 of 1	8	08.09	Flammable i-Module Certification Parts List
P-5516	1 of 1	4	08.09	Hybrid 1B
P-5825-A4	1 of 1	5	08.09	Tetra 3 ATEX & IECEx Certification Label
5567-CD-CERT	1 of 1	1	29.10.09	Hybrid 3
5567-PCB-CERT	1 of 1	1	29.10.09	Hybrid 3 PCB Drawing
5567-PL-CERT	1 of 1	1	28.10.09	Crowcon Type 3 Hybrid Certification Parts List
5832-PL	1 & 2	5	27.10.09	Tetra3 (Mini-Tetra) Main Board Certification Parts List



Number	Sheet	Issue	Date	Description
P-5820-A2	1 of 1	4	06.06	Tetra 3 Certification GA
P-5887-A2	1 of 1	1	06.07	Tetra 3 Battery Assembly Drawing
P-5829-A4	1 of 1	1	12.05	Tetra 3 Ribbon Cable Insulator
P-5847-A4	1 of 1	1	10.05	Tetra 3 Main Board Insulating Label
P-5800	1 & 2	2	31.10.05	Tetra 3 Main Board (Mini-Tetra)
P-5840-A2	1 of 1	2	11.05	Tetra 3 Main Board PCB & Track Details
5407-CERT	1 of 1	7	10.07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	1 of 1	4	07.06	Gasman Type 1A Hybrid Mech And Tracking Details
P-5517	1 of 1	3	01.06	Hybrid 1A
5411-CERT	1 of 1	6	10.07	Crowcon Type 1B ("Encapsulated Fuse" Hybrid Certification Parts List
P-5410-A3	1 of 1	3	07.06	Gasman Type 1B Hybrid Mech And Tracking Details
P-5801	1 of 1	1	12.10.05	Tetra 3 iModule Terminal Board (Mini-Tetra)
P-5836-A4	1 of 1	1	17.10.05	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1 of 1	1	10.05	Tetra 3 iModule Terminal PCB & Track Details
P-5802	1 - 15	2	27.10.06	Tetra 3 Display Board (Mini-Tetra)
P-5834-A4	1 of 1	2	04.08.06	Mini-Tetra (Tetra 3) Display Board Certification Parts List
P-5842-A2	1 of 1	2	11.06	Tetra 3 Display PCB & Track Details
P-5486	1 of 1	4	22.09.06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5475	1 - 7	3	14.09.06	Flammable i-Module board
P-5490	1 of 1	3	13.09.06	Tetra/Gasman Oxygen iModule
P-5494-A4	1 of 1	4	09.06	Oxygen i-Module Certification Parts List
P-5476-A3	1 of 1	2	06.05	Oxygen i-Module PCB And Track Details
P-5488	1 of 1	3	13.09.06	Tetra/Gasman Toxic iModule
P-5493-A4	1 & 2	7	01.07	Toxic i-Module Certification Parts List
P-5477-A3	1 of 1	2	06.05	Toxic i-Module PCB And Track Details
P-5518	1 of 1	3	22.09.06	Tetra/Gasman COSH iModule
P-5844-A4	1 & 2	2	22.09.06	Dual Toxic i-Module Certification Parts List
P-5526-A3	1 of 1	1	10.05	COSH i-Module PCB And Track Details
P-5520-PL	1 of 1	1	01.02.06	Alphasense COSH iModule Adapter
P-5527-A3	1 of 1	1	10.05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P-5821-A2	1 of 1	2	10.05	Tetra 3 Charger Assembly
P-5817	1 of 1	5	12.03.07	Tetra 3 (Mini-Tetra) Charger
P-5843	1 - 6	4	11.01.07	Tetra 3 Charger PCB
P-5838-A4	1 of 1	4	12.03.07	Tetra 3 Charger Certification Parts List
P-5437	1 of 1	1	20.12.04	Gasman Interface PCB
P-5438-A3	1 of 1	1	02.05	Gasman External Interface PCB And Track Details
P-5439-A4	1 of 1	1	03.03.05	Gasman External Interface Certification Parts List
P-5823-A4	1 of 1	2	02.07	Mini Tetra Charger Label

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0038



20 Certificate History

Certificate No.	Date	Comments
Baseefa05ATEX0187	21 December 2005	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 1997 + Amd. 1 & 2, EN 50018: 2000 and EN 50020: 2002 is documented in Test Report No. 05(C)0554.
Baseefa05ATEX0187/1	10 February 2006	To permit changes to drawings to enable the IR i-Module to be listed separately from the flammable i-Module. This is a documentation change and does not affect the safety assessment of the apparatus.
Baseefa05ATEX0187/2	11 April 2006	To permit a change of encapsulants in the hybrid circuits.
Baseefa05ATEX0187/3	12 July 2006	To permit the use of an alternative model name, Combi-Mate 3 , minor additions to the oxygen and toxic i-Module parts lists and minor changes to the GA, Hybrid 1A and charger PCB.
Baseefa05ATEX0187/4	15 September 2006	To permit minor changes to drawings and the use of alternative sounders.
Baseefa05ATEX0187/5	15 November 2006	To permit changes to the display PCB to form an issue two version and the addition of a conformal coating in a localised area of existing issue one PCBs.
Baseefa05ATEX0187/6	8 December 2006	To permit minor changes to the desktop charger units with part numbers C011018 and C011019. To permit the replacement of desktop charger C011018 with any Crowcon charger with an output (U_m) of 9V. When both charging and data communication are required, only charger / interface part number C011019 may be used. As documented in Test Report No. 06(C)1022.
Baseefa05ATEX0187/7	4 July 2007	To permit minor changes to drawings and minor modification to circuits.
Baseefa05ATEX0187/8	12 June 2008	To permit use of alternative encapsulants in the hybrid circuits.
Baseefa04ATEX0383 Issue 9	25 August 2009	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0:2004 and EN 60079-11:2007. The marking meets the requirements of IEC 60079-0:2007. This issue also incorporates the addition of the Hybrid 3 as an optional Hybrid module. Certification Drawings 5896, P-5867-CERT, P-5879-CERT and P-5888-2A are also made obsolete.
Baseefa04ATEX0383 Issue 10	2 December 2011	This issue of the certificate confirms the current design meets the requirements of EN 60079-0:2009 and EN 60079-1:2007. The marking code is unchanged.

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



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: **Baseefa05ATEX0187 – Issue 9**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, 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's. **GB/BAS/ExTR09.0168/00**

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

EN 60079-0: 2004 EN 60079-1: 2007 EN 60079-11: 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 ia d IIC T4 Gb (-20°C ≤ Ta ≤ +55°C)

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

Baseefa Customer Reference No. 0249

Project File No. 09/0552

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



13

Schedule

14

Certificate Number Baseefa05ATEX0187 – Issue 9

15 Description of Equipment or Protective System

The Tetra 3 is a three bay four gas monitor, designed to monitor the concentration of oxygen (deficiency), toxic or flammable gas, and provide visual, audible and physical (vibrator) warnings if preset limits are exceeded. The presence of any sensor (known as an i-Module) is optional and the maximum possible is one flammable i-Module, one oxygen i-Module and one toxic i-Module. The toxic i-Module may contain a dual sensor to measure two toxic gases.

It comprises electronic circuits on printed circuit boards, a display, various LED indicators, a pump, a vibrator, a sounder and a rechargeable lithium-ion battery, all contained in a plastic enclosure providing a degree of protection of at least IP20.

The permitted sensors used in the i-Modules are specified in the Crowcon documentation.

The apparatus is not designed for use in oxygen enriched atmospheres.

Charging conditions:

The apparatus must only be recharged or connected to serial communications when in a non-hazardous area, using the following chargers:

Crowcon desktop charger part number C011018

Crowcon desktop charger / interface part number C011019

Alternatively, any Crowcon charger with an output (U_m) of 9V may be used to charge the apparatus, although when both charging and data communications are required, only charger / interface part number C011019 may be used.

16 Report Number

GB/BAS/ExTR09.0168/00

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

New drawings submitted for this issue of certificate.

Number	Sheet	Issue	Date	Description
P-5492-A4	1 of 1	8	08.09	Flammable i-Module Certification Parts List
P-5516	1 of 1	4	08.09	Hybrid 1B
P-5825-A4	1 of 1	5	08.09	Tetra 3 ATEX & IECEx Certification Label
5567-CD-CERT	1 of 1	1	29.10.09	Hybrid 3
5567-PCB-CERT	1 of 1	1	29.10.09	Hybrid 3 PCB Drawing
5567-PL-CERT	1 of 1	1	28.10.09	Crowcon Type 3 Hybrid Certification Parts List
5832-PL	1 & 2	5	27.10.09	Tetra3 (Mini-Tetra) Main Board Certification Parts List

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0038 Issue 9



Current drawings also associated with this certificate.

Number	Sheet	Issue	Date	Description
P-5820-A2	1 of 1	4	06.06	Tetra 3 Certification GA
P-5887-A2	1 of 1	1	06.07	Tetra 3 Battery Assembly Drawing
P-5829-A4	1 of 1	1	12.05	Tetra 3 Ribbon Cable Insulator
P-5847-A4	1 of 1	1	10.05	Tetra 3 Main Board Insulating Label
P-5800	1 & 2	2	31.10.05	Tetra 3 Main Board (Mini-Tetra)
P-5840-A2	1 of 1	2	11.05	Tetra 3 Main Board PCB & Track Details
5407-CERT	1 of 1	7	10.07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	1 of 1	4	07.06	Gasman Type 1A Hybrid Mech And Tracking Details
P-5517	1 of 1	3	01.06	Hybrid 1A
5411-CERT	1 of 1	6	10.07	Crowcon Type 1B ("Encapsulated Fuse" Hybrid Certification Parts List
P-5410-A3	1 of 1	3	07.06	Gasman Type 1B Hybrid Mech And Tracking Details
P-5801	1 of 1	1	12.10.05	Tetra 3 iModule Terminal Board (Mini-Tetra)
P-5836-A4	1 of 1	1	17.10.05	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1 of 1	1	10.05	Tetra 3 iModule Terminal PCB & Track Details
P-5802	1 - 15	2	27.10.06	Tetra 3 Display Board (Mini-Tetra)
P-5834-A4	1 of 1	2	04.08.06	Mini-Tetra (Tetra 3) Display Board Certification Parts List
P-5842-A2	1 of 1	2	11.06	Tetra 3 Display PCB & Track Details
P-5486	1 of 1	4	22.09.06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5475	1 - 7	3	14.09.06	Flammable i-Module board
P-5490	1 of 1	3	13.09.06	Tetra/Gasman Oxygen iModule
P-5494-A4	1 of 1	4	09.06	Oxygen i-Module Certification Parts List
P-5476-A3	1 of 1	2	06.05	Oxygen i-Module PCB And Track Details
P-5488	1 of 1	3	13.09.06	Tetra/Gasman Toxic iModule
P-5493-A4	1 & 2	7	01.07	Toxic i-Module Certification Parts List
P-5477-A3	1 of 1	2	06.05	Toxic i-Module PCB And Track Details
P-5518	1 of 1	3	22.09.06	Tetra/Gasman COSH iModule
P-5844-A4	1 & 2	2	22.09.06	Dual Toxic i-Module Certification Parts List
P-5526-A3	1 of 1	1	10.05	COSH i-Module PCB And Track Details
P-5520-PL	1 of 1	1	01.02.06	Alphasense COSH iModule Adapter
P-5527-A3	1 of 1	1	10.05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P-5821-A2	1 of 1	2	10.05	Tetra 3 Charger Assembly
P-5817	1 of 1	5	12.03.07	Tetra 3 (Mini-Tetra) Charger
P-5843	1 - 6	4	11.01.07	Tetra 3 Charger PCB
P-5838-A4	1 of 1	4	12.03.07	Tetra 3 Charger Certification Parts List
P-5437	1 of 1	1	20.12.04	Gasman Interface PCB
P-5438-A3	1 of 1	1	02.05	Gasman External Interface PCB And Track Details
P-5439-A4	1 of 1	1	03.03.05	Gasman External Interface Certification Parts List
P-5823-A4	1 of 1	2	02.07	Mini Tetra Charger Label

The above drawings are associated and held with IECEx Certificate No. IECEx BAS 05.0038



20 Certificate History

Certificate No.	Date	Comments
Baseefa05ATEX0187	21 December 2005	The release of the prime certificate. The associated test and assessment against the requirements of EN 50014: 1997 + Amd. 1 & 2, EN 50018: 2000 and EN 50020: 2002 is documented in Test Report No. 05(C)0554.
Baseefa05ATEX0187/1	10 February 2006	To permit changes to drawings to enable the IR i-Module to be listed separately from the flammable i-Module. This is a documentation change and does not affect the safety assessment of the apparatus.
Baseefa05ATEX0187/2	11 April 2006	To permit a change of encapsulants in the hybrid circuits.
Baseefa05ATEX0187/3	12 July 2006	To permit the use of an alternative model name, Combi-Mate 3, minor additions to the oxygen and toxic i-Module parts lists and minor changes to the GA, Hybrid 1A and charger PCB.
Baseefa05ATEX0187/4	15 September 2006	To permit minor changes to drawings and the use of alternative sounders.
Baseefa05ATEX0187/5	15 November 2006	To permit changes to the display PCB to form an issue two version and the addition of a conformal coating in a localised area of existing issue one PCBs.
Baseefa05ATEX0187/6	8 December 2006	To permit minor changes to the desktop charger units with part numbers C011018 and C011019. To permit the replacement of desktop charger C011018 with any Crowcon charger with an output (U_m) of 9V. When both charging and data communication are required, only charger / interface part number C011019 may be used. As documented in Test Report No. 06(C)1022.
Baseefa05ATEX0187/7	4 July 2007	To permit minor changes to drawings and minor modification to circuits.
Baseefa05ATEX0187/8	12 June 2008	To permit use of alternative encapsulants in the hybrid circuits.
Baseefa04ATEX0383 Issue 9	25 August 2009	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0:2004 and EN 60079-11:2007. The marking meets the requirements of IEC 60079-0:2007. This issue also incorporates the addition of the Hybrid 3 as an optional Hybrid module. Certification Drawings 5896, P-5867-CERT, P-5879-CERT and P-5888-2A are also made obsolete.
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: **Baseefa05ATEX0187/8**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 07/1070

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 Baseefa05ATEX0187/8

15 Description of the variation to the Equipment or Protective System

Variation 8.1

To permit the use of alternative encapsulants in the hybrids, as listed on the appropriate parts lists.

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 changed or added in this Supplement

Number	Issue	Date	Description
5407-CERT Replaces P-5407-A4	7	10/07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
5411-CERT Replaces P-5411-A4	6	10/07	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List

The above drawings are common to and held with Certificate IECEx BAS 05.0059/8 (Report GB/BAS/ExTR07.0191/00)

Drawings and Documents showing the current build options for this apparatus

Number	Issue	Date	Description
P-5820-A2	4	06/06	Mini Tetra3 3 Bay / 4 Gas Monitor (G A)
P-5887-A2	1	06/07	Tetra 3 Battery Assembly Drawing
P-5829-A4	1	DEC/05	Insulation Label (Ribbon cable separator)
P-5847-A4	1	Oct / 05	Mini Tetra Main Board Insulating Label
P5800 Sheets 1 & 2	2	31/10/05	Mini Tetra - Main PCB (circuit diagram, also gives total C and L)
P-5832-A4	4	16-11-2006	Mini Tetra Main Board Certification Parts List
P-5840-A2	2	11/05	Main Board PCB & Track Details
5407-CERT Replaces P-5407-A4	7	10/07	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	4	07/06	Gasman Type 1A Hybrid Mech and Tracking Details
P-5517 Issue 3	3	01/06	Hybrid 1A (Circuit Diagram)



Number	Issue	Date	Description
5411-CERT Replaces P-5411-A4	6	10/07	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List
P-5410-A3	3	07/06	Gasman Type 1B Hybrid Mech and Tracking Details
P-5516 issue 3	3	10/06	Hybrid 1B (Circuit Diagram)
P-5801	1	12/10/05	Mini-Tetra iModule Interface Board (Circuit Diagram)
P-5836-A4	1	17.10.2005	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1	10/05	Mini Tetra Module Terminal Board PCB & Track Details
P-5802 Sheets 1 to 15	2	27/10/06	Tetra3 Display Board (Circuit Diagram)
P-5834	2	4.8.2006	Mini-Tetra (Tetra3) Display Board Certification Parts List
P-5888-2A	2	11/06	Tetra 3 Display PCB issue 1 PCB conformal Coating Manufacturing Process Drawing
P-5802 issue 2 Sheets 1 to 15	2	27/10/06	Tetra 3 Display Board (Circuit Diagram)
P-5842-A2	2	11/06	Tetra 3 Display PCB & Track Details
P-5486 issue 4	4	22-9-06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5492-A4	6	Sept 2006	Flammable i-Module Certification Parts List
P-5475 issue 3 Sheets 1 to 7	3	14/9/06	Flam i-Module Board
P-5528-A4	1	Feb 2006	IR i-Module Certification Parts List (Dynament Sensor)
P-5490 issue 3	3	13/9/06	Tetra / Gasman Oxygen i-Module (Circuit Diagram)
P-5494-A4	4	Sept 2006	Oxygen i-Module Certification Parts List
P-5476-A3	2	06/05	Oxygen i-Module PCB & Track Details (used only for general physical size of module)
P-5488 issue 3	3	13/9/06	Tetra/Gasman Toxic i-Module (Circuit Diagram)
P-5493-A4 Sheets 1 & 2	7	Jan 2007	Toxic i-Module Certification Parts List
P-5477-A3	2	06/05	Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5518 issue 3	3	22/09/06	Tetra/Gasman COSH iModule (Circuit Diagram)
P-5844-A4 Sheets 1 & 2	2	22.9.2006	Dual Toxic i-Module Certification Parts List
P-5526-A3	1	10/05	Dual Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5520 Issue 1	1	6/9/05	Alphasense COSH iModule Adapter
P-5527-A3	1	10/05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P5867-CERT-issue 1 Sheets 1 & 2	1	27/7/2006	CO2 electro-chemical sensor i-module
P-5879-CERT ISSUE 1 Sheets 1 to 7	1	27/7/06	CO2 chemical i-module
P-5825-A4	4	06/06	Tetra 3 ATEX & IECEx Certification Label



Number	Issue	Date	Description
P5821-A2	2	Oct / 05	Mini Tetra Charger Assembly
P-5817	2	12/10/05	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
5896	1	6/07	Tetra 3 Charger issue 2 PCB Modifications
P-5817	5	12/3/07	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
P-5843	4	11/1/07	Tetra3 Charger PCB
Sheets 1 to 6			
P-5838-A4	2,3,4	12.3.2007	Tetra3 Charger Certification Parts List
P5437 issue 1 Interface Sheet 1	1	20/12/04	Gasman Interface PCB (Circuit Diagram)
P-5438-A3	1	02/05	Gasman Interface PCB and Track Details
P-5439-A4	1	3.3.2005	Gasman External Interface Certification Parts List
P-5823-A4	2	02/07	Mini Tetra Charger Label



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: **Baseefa05ATEX0187/7**
- 4 Equipment or Protective System: **Tetra 3**
- 5 Manufacturer: **Crowcon Detection Instruments Ltd**
- 6 Address: **Abingdon, Oxfordshire, OX14 1DY**
- 7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 06/0781

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".

Baseefa
Rockhead Business Park, Staden Lane,
Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 768600 Fax +44 (0) 1298 768601
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 Baseefa05ATEX0187/7

15 Description of the variation to the Equipment or Protective System

Variation 7.1

To permit minor changes to drawings and minor modifications to circuits as listed below.

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 changed or added in this Supplement

Number	Issue	Date	Description
P-5517 issue 3	3	01/06	Hybrid 1A (Circuit Diagram)
P-5407-A4	6	August 2006	Crowcon Type 1A("Rechargeable) Hybrid Certification Parts List
P-5516 issue 3	3	10/06	Hybrid 1B (Circuit Diagram)
P-5411-A4	5	08/06	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List
P-5518 issue 3	3	22/09/06	Tetra / Gasman COSH iModule (Circuit Diagram)
P-5888-2A	2	11/06	Tetra 3 Display PCB issue 1 PCB conformal Coating Manufacturing Process Drawing
P-5844-A4 Sheets 1 & 2	2	22.9.2006	Dual Toxic i-Module Certification Parts List
P-5490 issue 3	3	13/9/06	Tetra / Gasman Oxygen i-Module (Circuit Diagram)
P-5494-A4	4	Sept 2006	Oxygen i-Module Certification Parts List
P-5486 issue 4	4	22-9-06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5492-A4	6	Sept 2006	Flammable i-Module Certification Parts List
P-5475 issue 3 Sheets 1 to 7	3	14/9/06	Flammable i-Module Board
P-5488 issue 3	3	13/9/06	Tetra / Gasman Toxic i-Module (Circuit Diagram)
P-5493-A4 Sheets 1 & 2	7	Jan 2007	Toxic i-Module Certification Parts List
P-5887-A2	1	06/07	Tetra 3 Battery Assembly Drawing
P-5834-A4	2	4.8.2006	Mini-Tetra (Tetra 3) Display Board Certification Parts List



Number	Issue	Date	Description
P-5832-A4	4	16-11-2006	Mini-Tetra Main Board Certification Parts List
5896	1	6/07	Tetra 3 Charger issue 2 PCB Modifications
P-5817	5	12/3/07	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
P-5838-A4	2,3,4	12.3.2007	Tetra 3 Charger Certification Parts List
P-5843 Sheets 1 to 6	4	11/1/07	Tetra 3 Charger PCB
P-5823-A4	2	02/07	Mini Tetra Charger Label

The above drawings are common to and held with Certificate IECEX BAS 05.0059 (Report GB/BAS/ExTR06.0177/00)

Drawings and Documents showing the current build options for this apparatus

Number	Issue	Date	Description
P-5820-A2	4	06/06	Mini Tetra3 3 Bay / 4 Gas Monitor (G A)
P-5887-A2	1	06/07	Tetra 3 Battery Assembly Drawing
P-5829-A4	1	DEC/05	Insulation Label (Ribbon cable separator)
P-5847-A4	1	Oct / 05	Mini Tetra Main Board Insulating Label
P5800 Sheets 1 & 2	2	31/10/05	Mini Tetra - Main PCB (circuit diagram, also gives total C and L)
P-5832-A4	4	16-11-2006	Mini Tetra Main Board Certification Parts List
P-5840-A2	2	11/05	Main Board PCB & Track Details
P-5407-A4	6	August 2006	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	4	07/06	Gasman Type 1A Hybrid Mech and Tracking Details
P-5517 Issue 3	3	01/06	Hybrid 1A (Circuit Diagram)
P-5411-A4	5	08/06	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List
P-5410-A3	3	07/06	Gasman Type 1B Hybrid Mech and Tracking Details
P-5516 issue 3	3	10/06	Hybrid 1B (Circuit Diagram)
P-5801	1	12/10/05	Mini-Tetra iModule Interface Board (Circuit Diagram)
P-5836-A4	1	17.10.2005	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1	10/05	Mini Tetra Module Terminal Board PCB & Track Details
P-5802 Sheets 1 to 15	2	27/10/06	Tetra3 Display Board (Circuit Diagram)
P-5834	2	4.8.2006	Mini-Tetra (Tetra3) Display Board Certification Parts List
P-5888-2A	2	11/06	Tetra 3 Display PCB issue 1 PCB conformal Coating Manufacturing Process Drawing
P-5802 issue 2 Sheets 1 to 15	2	27/10/06	Tetra 3 Display Board (Circuit Diagram)
P-5842-A2	2	11/06	Tetra 3 Display PCB & Track Details
P-5486 issue 4	4	22-9-06	Flammable i-Module Tetra, Tetra 3, Gasman
P-5492-A4	6	Sept 2006	Flammable i-Module Certification Parts List



Number	Issue	Date	Description
P-5475 issue 3 Sheets 1 to 7	3	14/9/06	Flam i-Module Board
P-5528-A4	1	Feb 2006	IR i-Module Certification Parts List (Dynament Sensor)
P-5490 issue 3	3	13/9/06	Tetra / Gasman Oxygen i-Module (Circuit Diagram)
P-5494-A4	4	Sept 2006	Oxygen i-Module Certification Parts List
P-5476-A3	2	06/05	Oxygen i-Module PCB & Track Details (used only for general physical size of module)
P-5488 issue 3	3	13/9/06	Tetra/Gasman Toxic i-Module (Circuit Diagram)
P-5493-A4 Sheets 1 & 2	7	Jan 2007	Toxic i-Module Certification Parts List
P-5477-A3	2	06/05	Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5518 issue 3	3	22/09/06	Tetra/Gasman COSH iModule (Circuit Diagram)
P-5844-A4 Sheets 1 & 2	2	22.9.2006	Dual Toxic i-Module Certification Parts List
P-5526-A3	1	10/05	Dual Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5520 Issue 1	1	6/9/05	Alphasense COSH iModule Adapter
P-5527-A3	1	10/05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P5867-CERT-issue 1 Sheets 1 & 2	1	27/7/2006	CO2 electro-chemical sensor i-module
P-5879-CERT ISSUE 1 Sheets 1 to 7	1	27/7/06	CO2 chemical i-module
P-5825-A4	4	06/06	Tetra 3 ATEX & IECEX Certification Label
P5821-A2	2	Oct / 05	Mini Tetra Charger Assembly
P-5817	2	12/10/05	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
5896	1	6/07	Tetra 3 Charger issue 2 PCB Modifications
P-5817	5	12/3/07	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
P-5843 Sheets 1 to 6	4	11/1/07	Tetra3 Charger PCB
P-5838-A4	2,3,4	12.3.2007	Tetra3 Charger Certification Parts List
P5437 issue 1 Interface Sheet 1	1	20/12/04	Gasman Interface PCB (Circuit Diagram)
P-5438-A3	1	02/05	Gasman Interface PCB and Track Details
P-5439-A4	1	3.3.2005	Gasman External Interface Certification Parts List
P-5823-A4	2	02/07	Mini Tetra Charger Label



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: **Baseefa05ATEX0187/6**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 06/1022

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".

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 Baseefa05ATEX0187/6

15 Description of the variation to the Equipment or Protective System

Variation 6.1

To permit minor changes to the desktop charger units with part number C011018 and C011019.

Variation 6.2

When only charging of the apparatus is required, the desktop charger part number C011018 may be replaced by any Crowcon charger with an output (U_m) of 9V.

When both charging and data communication are required, only charger / interface part number C011019 must be used.

16 Report Number

06(C)1022, held with Certificate Baseefa04ATEX0383/6.

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
P-5817	3	23/11/06	Tetra 3 (Mini-Tetra) Charger (Circuit Diagram)
P-5838-A4	2	8.12.2006	Tetra 3 Charger Certification Parts List
P-5843 Sheets 1 to 6	3	6/12/06	Tetra 3 Charger PCB

The above drawings are common to and held with Certificate IECEX BAS 05.0059 (Report GB/BAS/ExTR06.0172/00)



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: **Baseefa05ATEX0187/5**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 06/0926

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 766800 Fax +44 (0) 1298 766801
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 Baseefa05ATEX0187/5

15 Description of the variation to the Equipment or Protective System

Variation 5.1

To permit changes to the display PCB to form an issue 2 version, and to permit the addition of a conformal coating in a localised area of existing issue 1 PCBs.

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	Issue	Date	Description
P-5888-1A	1	10/06	Tetra 3 Display PCB issue 1 PCB conformal Coating Manufacturing Process Drawing
P-5802 issue 2 Sheets 1 to 15	2	27/10/06	Tetra 3 Display Board (Circuit Diagram)
P-5842-A2	2	11/06	Tetra 3 Display PCB & Track Details

The above drawings are common to and held with Certificate IECEx BAS 05.0059 (Report GB/BAS/ExTR06.0162/00)

Certificate Number
Baseefa05ATEX0187/4



Issued 15 September 2006
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: **Baseefa05ATEX0187/4**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa05ATEX0187 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. 06/0673

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

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

R S SINCLAIR
DIRECTOR
On behalf of

Baseefa (2001) Ltd.



13

Schedule

14

Certificate Number Baseefa05ATEX0187/4

15 Description of the variation to the Equipment or Protective System

Variation 4.1

To permit minor changes to drawings, the use of alternative sounders, and the use of an optional alternative CO2 chemical i-module.

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	Issue	Date	Description
P-5832-A4	2,3	4-8-2006	Mini Tetra Main Board Certification Parts List
P-5406-A3	4	07/06	Gasman Type 1A Hybrid Mech and Tracking Details
P-5410-A3	3	07/06	Gasman Type 1B Hybrid Mech and Tracking Details
P5867-CERT-issue 1 Sheets 1 & 2	1	27/7/2006	CO2 electro-chemical sensor i-module
P-5879-CERT ISSUE 1 Sheets 1 to 7	1	27/7/06	CO2 chemical i-module

The above drawings are common to and held with Certificate IECEx BAS 05.0059 (Report GB/BAS/ExTR06.0104)



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: **Baseefa05ATEX0187/3**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 06/0425

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 786600 Fax +44 (0) 1298 786601
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

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

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



13

Schedule

14

Certificate Number Baseefa05ATEX0187/3

15 Description of the variation to the Equipment or Protective System

Variation 3.1

To permit the use of an alternative model name **Combi-Mate 3**, minor additions to the Oxygen and Toxic i-Module Certification Parts Lists, and minor changes to the GA, Hybrid 1A and the charger PCB.

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	Issue	Date	Description
P-5825-A4	4	06/06	Tetra 3 ATEX & IECEx Certification Label
P-5820-A2	4	06/06	Tetra 3 Certification GA
P-5493-A4 Sheets 1 & 2	5	Apr 2006	Toxic i-Module Certification Parts List
P-5494-A4	3	Apr 2006	Oxygen i-Module Certification Parts List
P-5517 issue 2	2	01/06	Hybrid 1A (Circuit Diagram)
P-5843-A2	2	10/05	Tetra 3 Charger PCB & Track Details

The above drawings are common to and held with Certificate IECEx BAS 05.0059/3



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: **Baseefa05ATEX0187/2**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **Abingdon, Oxfordshire, OX14 1DY**

7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 06/0285

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 Baseefa05ATEX0187/2

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

Variation 2.1

To permit a change of encapsulant in the hybrid circuits.

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	Issue	Date	Description
P-5407-A4	5	March 2006	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	3	03/06	Gasman Type 1A Hybrid Mech and Tracking Details
P-5411-A4	4	03/06	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List
P-5410-A3	2	03/06	Gasman Type 1B Hybrid Mech and Tracking Details

The above drawings are common to and held with Report GB/BAS/ExTR06.0029/00 (Certificate IECEX BAS 05.0038)



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: **Baseefa05ATEX0187/1**
- 4 Equipment or Protective System: **Tetra 3**
- 5 Manufacturer: **Crowcon Detection Instruments Ltd**
- 6 Address: **Abingdon, Oxfordshire, OX14 1DY**

- 7 This supplementary certificate extends EC - Type Examination Certificate No. Baseefa05ATEX0187 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. 05/0256

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

A handwritten signature in black ink, appearing to read "R S Sinclair".
R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.



13

Schedule

14

Certificate Number Baseefa05ATEX0187/1

15 Description of the variation to the Equipment or Protective System

Variation 1.1

To permit changes to drawings to enable the IR i-module to be listed separately from the Flammable i-module. This is a documentation change, and does not affect the safety assessment of the apparatus.

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	Issue	Date	Description
P-5492-A4	5	Feb 2006	Flammable i-Module Certification Parts List
P-5528-A4	1	Feb 2006	IR i-Module Certification Parts List (Dynament Sensor)

The above drawings are common to and held with Reports UK/BAS/05/0554 and UK/BAS/05/0256/4 (Certificate IECEX BAS 05.0059).



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: **Baseefa05ATEX0187**

4 Equipment or Protective System: **Tetra 3**

5 Manufacturer: **Crowcon Detection Instruments Ltd**

6 Address: **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. 05(C)0554

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

EN 50014: 1997 + amendments 1 & 2 EN 50020: 2002 EN 50018: 2000

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 :

(Ex) II 2G EEx iad IIC T4 (-20°C ≤ Ta ≤ +55°C)

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

Baseefa Customer Reference No. 0249

Project File No. 05/0554

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 Baseefa05ATEX0187

15 **Description of Equipment or Protective System**

The Tetra 3 is a three bay four gas monitor, designed to monitor the concentration of oxygen (deficiency), toxic or flammable gas, and provide visual, audible and physical (vibrator) warnings if preset limits are exceeded. The presence of any sensor (known as an i-module) is optional and the maximum possible is one flammable i-module, one oxygen i-module and one toxic i-module. The toxic i-module may contain a dual sensor to measure two toxic gases.

It comprises electronic circuits on printed circuit boards, a display, various LED indicators, a pump, a vibrator, a sounder and a rechargeable lithium-ion battery, all contained in a plastic enclosure providing a degree of protection of at least IP20.

The permitted sensors used in the i-modules are specified in the Crowcon documentation.

The apparatus must only be recharged or connected to serial data communications in a non-hazardous area, using a Crowcon desktop charger or charger / interface, part number C011018 or C011019.

The apparatus is not designed for use in oxygen enriched atmospheres.

16 **Report Number**

05(C)0554

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	Issue	Date	Description
P-5820-A2	2	DEC / 05	Mini Tetra3 3 Bay / 4 Gas Monitor (G A)
P-5829-A4	1	DEC/05	Insulation Label (Ribbon cable separator)
P-5847-A4	1	Oct / 05	Mini Tetra Main Board Insulating Label
P5800 Sheets 1 & 2	2	31/10/05	Mini Tetra - Main PCB (circuit diagram, also gives total C and L)
P-5832-A4	1	17-10-2005	Mini Tetra Main Board Certification Parts List
P-5840-A2	2	11/05	Main Board PCB & Track Details
P-5407-A4	4	Sept 2005	Crowcon Type 1A ("Rechargeable") Hybrid Certification Parts List
P-5406-A3	2	02/05	Gasman Type 1A Hybrid Mech and Tracking Details
P-5517 Issue 1	1	06/05	Hybrid 1A (Circuit Diagram)



Number	Issue	Date	Description
P-5411-A4	3	10/05	Crowcon Type 1B ("Encapsulated Fuse") Hybrid Certification Parts List
P-5410-A3	1	02/05	Gasman Type 1B Hybrid Mech and Tracking Details
P-5516	2	07/05	Hybrid 1B (Circuit Diagram)
P-5801	1	12/10/05	Mini-Tetra iModule Interface Board (Circuit Diagram)
P-5836-A4	1	17.10.2005	Mini-Tetra iModule Interface Board Certification Parts List
P-5841-A2	1	10/05	Mini Tetra Module Terminal Board PCB & Track Details
P-5802 Sheets 1 to 15	1	12/10/05	Tetra3 Display Board (Circuit Diagram)
P-5834	1	20.10.2005	Mini-Tetra (Tetra3) Display Board Certification Parts List
P-5842-A2	1	10/05	Mini-Tetra Display Board PCB Layout
P-5486 issue 3 Sheet 1 of 2	3	10-11-05	Flammable iModule (Circuit Diagram including C and L)
P-5492-A4	4	Dec 2005	Flammable i-Module Certification Parts List
P-5475-A3	2	06 / 05	Flam i-Module PCB & Track Details (used only for general physical size of module)
P-5490 issue 2 Sheet 1 of 3	2	4-2-2005	Tetra / Gasman Oxygen iModule (Circuit Diagram including C and L)
P-5494-A4	2	May 2005	Oxygen iModule Certification Parts List
P-5476-A3	2	06/05	Oxygen i-Module PCB & Track Details (used only for general physical size of module)
P-5488 issue 2 Sheet 1 of 3	2	15/6/05	Tetra/Gasman Toxic iModule (Circuit Diagram including C and L)
P-5493-A4 Sheets 1 & 2	4	Nov 2005	Toxic i-Module Certification Parts List
P-5477-A3	2	06/05	Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5518 issue 1	1	12/10/05	Tetra/Gasman COSH iModule (Circuit Diagram including C and L)
P-5844-A4	1	20.10.2005	Dual Toxic i-Module Certification Parts List
P-5526-A3	1	10/05	Dual Toxic i-Module PCB & Track Details (used only for general physical size of module)
P-5520 Issue 1	1	6/9/05	Alphasense COSH iModule Adapter
P-5527-A3	1	10/05	Alphasense D2 COSH i-Module Adapter PCB & Track Details
P-5825-A4	1	10/05	Mini Tetra Baseefa Certification Label
P5821-A2	2	Oct / 05	Mini Tetra Charger Assembly
P-5817 Issue 2	2	12/10/05	Mini-Tetra Charger (Circuit Diagram)



Number	Issue	Date	Description
P-5843-A2	1	10/05	Tetra3 Charger PCB and Track Details
P-5838-A4	1	20.10.2005	Tetra3 Charger Certification Parts List
P5437 issue 1 Interface Sheet 1	1	20/12/04	Gasman Interface PCB (Circuit Diagram)
P-5438-A3	1	02/05	Gasman Interface PCB and Track Details
P-5439-A4	1	3.3.2005	Gasman External Interface Certification Parts List
P-5825-A4	1	10/05	Mini Tetra Charger Instrument Label

The above drawings are common to Report UK/BAS/05/0554 and held with Certificate IECEX BAS 05.0059.