

1 **EU - TYPE EXAMINATION CERTIFICATE**

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

3 EU - Type Examination Certificate **Baseefa11ATEX0027 – Issue 7**  
Number:

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

4 Product: **Cub**

5 Manufacturer: **Ion Science Limited**

6 Address: **The Hive, Butts Lane, Fowlmere, Royston, SG8 7SL**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa11ATEX0027 to apply to product designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

8 SGS Fimko Oy, Notified Body number 0598, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

8.1 The original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History.**

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

**EN IEC 60079-0:2018 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 product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

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

12 The marking of the product shall include the following:

**⊕ II 1G Ex ia IIC T4 Ga (-20°C ≤ Ta ≤ +55°C)**

SGS Fimko Oy Customer Reference No. **2242**

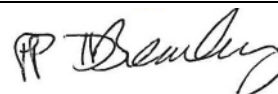
Project File No. **19/0709**

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D BREARLEY  
Certification  
Manager

**R S SINCLAIR**  
Authorised Signatory for SGS Fimko Oy

13

## Schedule

14

### Certificate Number Baseefa11ATEX0027 – Issue 7

#### 15 Description of Product

The Cub is a self-contained battery powered hand-held gas detector intended to monitor the concentration of Volatile Organic Compounds (VOC) or various toxic gasses, dependent on which sensor is fitted. It produces alarms (audible, visual and vibrator) if preset levels are exceeded. The particular gas being monitored is shown on the display for a short time at switch on.

It is powered by a rechargeable battery, which is recharged by placing the gas detector into a Docking Station located in a non-hazardous area. Whilst in the Data or Calibration Docking Station, data can be transferred to and from other non-hazardous area equipment such as a computer. Whilst in the Charge Docking Station, only recharging is done.

The apparatus must only be recharged when in a non-hazardous area, and using one of the Ion Science Docking Stations as shown in the drawings listed below.

The VOC sensor is from the MinPID range covered by Certificates Baseefa07ATEX0060U & IECEx BAS07.0030U & the other sensors are electrochemical cells which do not require individual certification. The sensors must only be changed when in a non-hazardous area.

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

#### 16 Report Number

See Certificate History.

#### 17 Specific Conditions of Use

None

#### 18 Essential Health and Safety Requirements

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

| Clause | Subject                     |
|--------|-----------------------------|
| 1.2.7  | LVD type requirements       |
| 1.4.1  | External effects            |
| 1.4.2  | Aggressive substances, etc. |

#### 19 Drawings and Documents

New drawings submitted for this issue of certificate:

| Number           | Sheet  | Issue | Date       | Description                        |
|------------------|--------|-------|------------|------------------------------------|
| <b>Tiger Cub</b> |        |       |            |                                    |
| CERT0136a        | 1 of 2 | 4     | 22,Dec,17  | TC Interface Circuit Diagram       |
| CERT0136b        | 2 of 2 | 4     | 20,Dec,17  | TC Processor Circuit Diagram       |
| CERT0137         | 1 of 1 | 4     | 20,Dec,17  | Tiger Cub PCB Component Layout     |
| CERT0138         | 1 of 1 | 5     | 20,Dec,17  | TC PCB Track Side                  |
| CERT0139         | 1 of 1 | 5     | 20,Dec,17  | TC PCB Gnd Plane Side              |
| CERT0140         | 1 of 1 | 4     | 20,Dec,17  | Tiger Cub Critical Components List |
| CERT0141         | 1 – 2  | 9     | 28/05/2020 | Tiger Cub G.A.                     |

Current drawings which remain unaffected by this issue:

| Number                                       | Sheet  | Issue | Date        | Description                                    |
|--|--------|-------|-------------|--|
| <b>Tiger Cub</b>                             |        |       |             |  |
| CERT0136a                                    | 1 of 2 | 3     | 22,Oct,12   | TC Interface Circuit Diagram                   |
| CERT0136b                                    | 2 of 2 | 3     | 22,Oct,12   | TC Processor Circuit Diagram                   |
| CERT0137                                     | 1 of 1 | 3     | 22,Oct,12   | Tiger Cub PCB Component Layout                 |
| CERT0138                                     | 1 of 1 | 4     | 18 Feb 16   | TC PCB Track Side                              |
| CERT0139                                     | 1 of 1 | 4     | 17 Feb 16   | TC PCB Gnd Plane Side                          |
| CERT0140                                     | 1 of 1 | 4     | 08,Dec,15   | Tiger Cub Critical Components List             |
| CERT0141                                     | 1 – 2  | 8     | 31/07/2019  | Tiger Cub G.A.                                 |
| CERT0154                                     | 1-2    | 06    | 07/08/2019  | CUB Instrument Approvals Label Details         |
| CERT0155                                     | 1      | 05    | 07/08/2019  | TC Instrument Serial No. Label Details.        |
| CERT0168                                     | 1 of 1 | 1     | 30,Oct,12   | TC PCB With Conformal Coating & Casting        |
| <b>Data or Calibration Docking Stations</b>  |        |       |             |  |
| CERT0142                                     | 1 of 1 | 1     | 02,Feb,12   | TC Docking Station Circuit Charging Clamp      |
| CERT0143                                     | 1 of 1 | 2     | 22,Oct,12   | TC Docking Station PCB Component Layout        |
| CERT0144                                     | 1 of 1 | 2     | 22,Oct,12   | TC Docking Station PCB Track, Component Side   |
| CERT0145                                     | 1 of 1 | 2     | 22,Oct,12   | TC Docking Station PCB Ground Plane Side       |
| CERT0146                                     | 1 of 1 | 3     | 08 Dec 2015 | TC Docking Station Critical Components List    |
| <b>Charge Docking Station</b>                |        |       |             |  |
| CERT0147                                     | 1 of 1 | 2     | 12,Mar,13   | TC Charge Docking Station Charging Clamp       |
| CERT0148                                     | 1 of 1 | 2     | 22,Oct,12   | TC Budget Docking Station PCB Component Layout |
| CERT0149                                     | 1 of 1 | 2     | 22,Oct,12   | TC Budget Docking Station PCB Tracking         |
| <b>All Docking Stations G A &amp; Labels</b> |        |       |             |  |
| CERT0158                                     | 1 of 1 | 2     | 29/02/2012  | TC Docking Station GA                          |
| CERT0156                                     | 1 & 2  | 6     | 07/01/13    | TC Docking Station Label Details               |
| CERT0169                                     | 1 of 1 | 1     | 31,Aug,12   | TC Dock. Station PCB Conformal Coating         |
| CERT0170                                     | 1 of 1 | 1     | 22,Oct,12   | TC Charge Dock. Stat. PCB Conformal Coating    |

## 20 Certificate History

| Certificate No.              | Date           | Comments  |
|------------------------------|----------------|---|
| Baseefa11ATEX0027            | 19 March 2012  | The release of the prime certificate. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR10.0259/00.  |
| Baseefa11ATEX0027<br>Issue 1 | 12 July 2012   | To permit various circuit changes for functional reasons. Intrinsic safety is not affected. The associated assessment is documented in Test Report No. GB/BAS/ExTR12.0183/00.   |
| Baseefa11ATEX0027<br>Issue 2 | 30 August 2013 | To permit various circuit changes and the use of an alternative rechargeable cell. Text added to section 15 to clarify that the sensors may only be changed in a non-hazardous area. Also to confirm the equipment complies with EN60079-0:2012 and EN60079-11:2012. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR12.0171/00. |

| <b>Certificate No.</b>   | <b>Date</b>       | <b>Comments</b>   |
|--|-------------------|---|
| Baseefa11ATEX0027<br>Issue 3                                       | 15 January 2016   | To permit various circuit changes which do not adversely affect the original assessment. Also to confirm the equipment complies with EN60079-0:2012+A11:2013. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR16.0026/00                               |
| Baseefa11ATEX0027<br>Issue 4                                       | 25 August 2016    | To permit the change of operator switch, and associated PCB changes. Intrinsic safety is not affected.<br>The associated test and assessment is documented in Test Report No. GB/BAS/ExTR16.0147/00. Associated Project file. 16/0170.  |
| Baseefa11ATEX0027<br>Issue 5                                       | 25 September 2018 | To permit the use of an alternative enclosure material. The associated test and assessment is documented in Test report GB/BAS/ExTR17.0325/00 for Project 16/0982.  |
| Baseefa11ATEX0027<br>Issue 6                                       | 8 August 2019     | To confirm that the design satisfies the requirements of EN-IEC-60079-0:2018 and to permit the use of two alternative battery types.<br>Report GB/BAS/ExTR19.0184/00 for Project 19/0361  |
| Baseefa11ATEX0027<br>Issue7  | 41 June 2020      | To permit an update to the PCB with minor electrical changes and to permit the use of an alternative over-mould material. The associated testing required to ensure continued compliance to the listed standards is documented in Test Report GB/BAS/ExTR20.0002/00; Project 19/0709. |
| For drawings applicable to each issue, see original of that issue. |                   |   |