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 Number: **Baseefa18ATEX0049X - Issue 2**

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: **SM1P Headset**

5 Manufacturer **Sensear Pty Limited**

6 Address: **197-199 Great Eastern Highway, Belmont, WA, 6104, Australia**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa18ATEX0049X 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:

See Schedule

SGS Fimko Oy Customer Reference No**. 7853** Project File No. **21/0525**

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13 # Schedule

14 ## Certificate Number Baseefa18ATEX0049X – Issue 2

15 Description of Product

The Type SM1P Electronic Ear-Muff is a battery powered, noise cancelling, headphone set designed to reduce background noise. It consists of two, plastic, ear cups each of which contains a speaker. Attached to the left-hand ear cup is a boom microphone, assembly number MFP00148 or throat microphone SMBM0002. These are plugged into a connector mounted in the left-hand ear cup enclosure wall. Small microphones are also mounted in both the left-hand side and the right-hand side enclosure walls, one in each. The right-hand, ear cup has a compartment with a lid which contains two connectors, i.e. a USB connector and a 3.5 mm stereo connector. A connector mounted in the right-hand, ear cup enclosure wall is used to optionally connect an external radio via a separate, cable mounted, interface unit identified as an SRCK61XXCCXX SM1P Ex Interface Cable, this interface being associated with, and certified as part of, this equipment. The SRCK61XXCCXX Interface Cable has the following intrinsic safety parameters at the radio connector:

Group I	**Group IIC**	**Group IIIC**
U_i = 8.4V	U_i = 8.4V	U_i = 8.4V
C_i = 0.1uF	C_i = 0.1uF	C_i = 0.1uF
L_i = 0uH	L_i = 0uH	L_i = 0uH
Ii = 0.42A	Ii = 0.42A	Ii = 0.42A
Pi = 1.3W	Pi = 1.3W	Pi = 1.3W
U_o = 4.1V	U_o = 4.1V	U_o = 4.1V
I_o = 7.7mA	I_o = 7.7mA	I_o = 7.7mA
P_o = 6mW	P_o = 6mW	P_o = 6mW
C_o = 1000uF	C_o = 100uF	C_o = 100uF
L_o = 1000mH	L_o = 600mH	L_o = 600mH

The following models are covered by this certificate:

SM1P	Base Model – All Features
SM1PW	No cabled Connection to any other device. Bluetooth® only
XBT	No Cable, No Short Range Radio – Just Bluetooth®
SM1PDP	Same as base Model: removes large speaker – adds earplugs with transducers
SM1B	No Short Range Radio, No Bluetooth®
SM1PWDP	No cable connection, removes large speaker - adds earplugs with transducers

With BAT00003

I M1 Ex ia I Ma (-20°C ≤ Ta ≤ +60°C)

II 1G Ex ia IIC T3 Ga (-20°C ≤ Ta ≤ +40°C)

With BAT00005

I M2 Ex ib I Mb (-20°C ≤ Ta ≤ +60°C)

II 2G Ex ib IIC T4 Gb (-20°C ≤ Ta ≤ +40°C)

II 2D Ex ib IIIC T155°C Db (-20°C ≤ Ta ≤ +40°C)

16 Report Number

See Certificate History

17 Specific Conditions of Use

1. Potential Electrostatic hazard, clean with damp cloth only.
2. The operating ambient temperature range is: -20°C to +60°C for Group I and: -20°C to +40°C for Group IIC & IIIC.

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:

Clause	Subject	Compliance
1.4.1	External effects	The Purchaser should make the manufacturer aware of such issues.
1.4.2	Aggressive substances, etc.	The Purchaser should make the manufacturer aware of such issues.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
IECEx132 (SGSCUS005)	1	AA.02	22/07/2021	SM1P Ex Control Drawing

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
IECEx034	1 to 4	AA.03	12/05/2011	PCB00040 Specification
IECEx037	1 to 10	AA.02	5/05/2011	PCB00040(AA.03) PCB Layout
IECEx101	1 of 1	AA.02	12/10/2018	SM1P I.S. RHS PCB00088 BOM
IECEx102	1 of 1	AA.02	07/07/2018	SM1P I.S. LHS PCB00087 BOM
IECEx103	1 to 5	AA.02	16/11/2018	SM1P I.S. RHS PCB00088 Specification
IECEx104	1 to 4	AA.01	13/03/2017	SM1P I.S. LHS PCB00087 Specification
IECEx105 (PCB00088)	1 to 6	AA.02	14/11/2018	SM1P I.S. RHS (Schematic)
IECEx106	1 to 8	B	16/11/2018	SM1P I.S. RHS (PCB00088 PCB Prints)
IECEx107 (PCB00087)	1 of 1	AA.01	17/07/2017	SM1P I.S. LHS (Schematic)
IECEx108	1 to 2	A	17/07/2017	SM1P I.S. LHS (PCB00087 PCB Prints)
IECEx115 (MFP00133)	1 of 1	AA.01	28/01/2015	MFP SDP SPEAKER HARNESS
IECEx116 (SMBM0002)	1 of 1	AA.01	13/07/2017	Throat Microphone
IECEx117	1 of 1	AA.01	16/08/2018	SM1P EX Interface Diagram
IECEx118 (MFP00151)	1 of 1	AA.03	28/09/2016	MFP SM1R & SM1P SPEAKER HARNESS
IECEx119	1 of 1	02	10/07/2018	SM1R-Boom Mic (Assy #: MFP00148)
IECEx120	1 of 1	AA.02	13/06/2018	PCB00040 BOM
IECEx121 (PCB00040)	1 of 1	AA.02	13/06/2018	SM1P Ex Inline Cable (Schematic)
IECEx122 (SRCK61XXCCXX)	1 of 1	AA.01	12/06/2018	SM1P Ex Intrinsically Safe Inline Radio Connection
IECEx123 (BAT00003)	1 to 2	AA.06	29/03/2018	Battery Pack
IECEx124 (SGSCUS003)	1 of 1	AA.01	02/05/2018	SM1P Ex Control Drawing
IECEx125	1 to 8	AA.02	20/11/2018	SM1PB Ex Certification Markings
IECEx126	1 to 28	AA.02	01/11/2018	SM1P Series Ex Manual
IECEx127	1 to 5	AA.01	07/08/2018	BAT00003 Battery Pack PCM PCB Layout
IECEx128	1 to 6	AA.01	08/08/2018	SM1P Ex Encapsulation Drawing

Number	Sheet	Issue	Date	Description
IECEx129	1 to 8	AA.01	04/10/2018	BAT00005 Battery Pack PCM PCB Prints
IECEx130	1 to 4	AA.01	04/10/2018	BAT00005 Battery Pack PCM Schematic Prints and BOM
IECEx131	1 of 1	AA.02	09/10/2018	BAT00005 SM1P I.S. Ex Battery Pack
IECEx132	1 of 1	AA.01	19/11/2018	SM1P Ex Control Drawing

All the above drawings are also associated and held with IECEx BAS 18.0035X

20 Certificate History

Certificate No.	Date	Comments
Baseefa18ATEX0049X	22 August 2018	The release of the prime certificate. The associated test and assessment against the requirements of EN 60079-0: 2012 + A11: 2013 and EN 60079-11: 2012 is documented in Test Report GB/BAS/ExTR18.0115/00, Project Number 17/0593.
Baseefa18ATEX0049X Issue 1	5 September 2019	This issue of the certificate incorporates previously issued primary certificate into one certificate; introduces the new model type SM1PWDP; permits the alternative use of battery BAT00005 with corresponding Certification Marking for both Gas and Dust and corrected the date of a drawing in the original drawing list. The assessment is recorded in GB/BAS/ExTR19.0166/00, Project Number 19/0234.
Baseefa18ATEX0049X Issue 2	3 August 2021	This issue permits additional entity parameters and confirms the current design meets the requirements of EN IEC 60079-0:2018. The assessment is recorded in GB/BAS/ExTR21.0136/00. Project Number 21/0525.
For drawings applicable to each issue, see original of that issue.		