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: **Baseefa08ATEX0336 – Issue 4**

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: **TX5633 Series Accelerometer**

5 This certificate is held by: **Trolex Limited**

6 Address: **Hazel Grove, Stockport, Cheshire, SK7 5DY**

7 This re-issued certificate extends EC Type Examination Certificate No. Baseefa08ATEX0336 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 Baseefa, Notified Body number 1180, 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.

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 60079-0:2012+A11:2013 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 :

Ⓔx I M1 Ex ia I Ma (-55°C ≤ Ta ≤ +110°C)

SGS Baseefa Customer Reference No. **1159** Project File No. **17/0645**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa08ATEX0336 – Issue 4**

15 Description of Product

The TX5633 Series Accelerometer is designed to measure acceleration, shock or vibration by converting the signal generated by the compression of a piezo electric crystal by a given seismic mass and outputting a broadband ac signal to the monitoring equipment.

The accelerometer comprises a piezo electric crystal connected to a signal conditioning board, all contained within a stainless steel enclosure of various shapes measuring approximately 25cm^3. The enclosure is a fully welded construction.

Electrical connections are made to the apparatus either via an IP65 rated connector or via an integral cable which is encapsulated in the end of the apparatus.

The apparatus has the following terminal parameters:

Connector only	10m of Cable	92m of Cable
Ui = 16.5V	Ui = 16.5V	Ui = 16.5V
Ci = 1.0nF	Ci = 5nF	Ci = 41nF
Li = negligible	Li = 7µH or Li/Ri = 15.4µH/Ω	Li/Ri = 15.4µH/Ω

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
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

None

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
P5563.01.02	1 of 1	B	21/09/12	TX5633 Vibration Sensor Grp I Certification Marking

This drawing is associated and held with IECEx BAS 08.0117.

Drawings associated with IECEx BAS 07.0037X and Baseefa07ATEX0149X are also associated with this certificate.

20 Certificate History

Certificate No.	Date	Comments
Baseefa08ATEX0336	20 November 2008	The release of the prime certificate. The associated test and assessment is documented in Test Report GB/BAS/ExTR08.0238/00.
Baseefa08ATEX0336/1	10 October 2012	This release confirms the current design meets the requirements of EN 60079-0: 2012 & EN 60079-11: 2012 including the revision of the marking in accordance with these standards. The associated test and assessment is documented in Test Report GB/BAS/ExTR12.0255/00.
Baseefa08ATEX0336 Issue 2	9 January 2015	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and to permit additional terminal parameters to be added for connector only variants (no cable included) and 10m of cable. A test and assessment report was not required for this change.
Baseefa08ATEX0336 Issue 3	22 March 2016	To permit the use of an alternative cable type and the use of an alternative catalyst with the encapsulant. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR16.0098/00 held on technical file IECEx BAS 08.0117
Baseefa08ATEX0336 Issue 4	12 October 2017	To permit minor changes to the main PCB and confirm the equipment meets the requirements of Directive 2014/34/EU. The associated test and assessment is documented in Test Report No. GB/BAS/ExTR17.0268/00 held on technical file IECEx BAS 08.0117; Job No: 17/0645.
For drawings applicable to each issue, see original of that issue.		