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:	**Baseefa18ATEX0157X**
4	Product:	**HS-104I Series Accelerometers**
5	Manufacturer:	**Hansford Sensors Limited.**
6	Address:	**Artisan, Hillbottom Road, Sands Industrial Estate, Bucks, HP12 4HJ**

7 This product and any acceptable variation thereto is specified in the schedule 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. **GB/BAS/ExTR18.0297/00**

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 :

Ex ia IIC T6...T4 Ga

SGS Baseefa Customer Reference No. **5943** Project File No. **18/0706**

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R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa18ATEX0157X**

15 Description of Product

The HS-104I Series Accelerometers are designed to measure acceleration 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 of a piezo electric crystal connected to a signal conditioning board, all contained within a fully welded steel enclosure.

Electrical connections are made via a connector or integral cable.

The equipment carries the following marking:
Ex ia IIC T6…T4 Ga

The equipment has the following temperature parameters.

Temperature Class	Ambient temperature range
T6	-55°C ≤ Ta ≤ +66°C
T4	-55°C ≤ Ta ≤ +116°C

The equipment has the following terminal parameters:

Connector Only		
Ui	=	12V
Ii	=	160mA
Pi	=	0.48W
Ci	=	494nF
Li	=	0

92m of cable		
Ui	=	12V
Ii	=	160mA
Pi	=	0.48W
Ci	=	529nF
Li	=	66µH

16 Report Number

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17 Specific Conditions of Use

1. Where the sensor is supplied with an integral cable, this must be terminated in an enclosure providing at least degree of protection IP20.
2. The equipment is marked with reduced certification marking. Refer to Certificate Schedule for full certification markings & applicable temperature classification and associated ambient temperature range.

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
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
C01-001	1 of 1	01	14-07-2016	4 Core Screened PUR Cable, 100°C.
C01-003	1 of 1	01	14-07-2016	3 Core Armoured (FEP Jacketed version).
C01-15-C01-16	1 of 1	A	26/10/18	M12 4 Pole Straight and Right Angled Female Screened Connector PUR Cable Assembly
C01-018	1 of 1	01	14-07-2016	3 core Screened Silicon Cable, 150°C.
C01-052	1 of 1	01	14-07-2016	3 Core Braided Screened Cable
C01-082-3C	1 of 1	02	21-03-2017	3 core Braided Screened & Drain Wire, 200°C.
C01-099	1 of 1	02	10-08-2016	3 Core Braided, Screened & Drain Wire – Filled, 90°C.
M06-076-A	1 – 6	A	12/11/18	General Arrangement And Product Information for HS-104I Group II Accelerometers.
P01-094	1 of 1	A	28.02.17	Connection + Temp. PCB Track Layout.
P01-107	1 of 1	A	12/11/18	HS-104I Series PCB
P02-107	1 of 1	A	12/11/18	HS-104I Series PCB Component Layout.
P02-107-A-2	2 of 3	A	12/11/18	HS-104I PCB Component Layout Wire Routing Through Cap.
P02-107-A-3	3 of 3	A	12/11/18	HS-104I PCB Component Layout, Wire Routing Through Cap Side Exit Version.
P03-107	1 of 1	A	09/11/18	HS-104I Low Voltage AC Circuit.