1 # TYPE EXAMINATION CERTIFICATE

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

3 Type Examination Certificate Number: **Baseefa17ATEX0069X**

4 Product: **HS-100IC3 Series Accelerometer**

5 Manufacturer: **Hansford Sensors Ltd**

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 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR17.0094/00**

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 TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment and not to specific items of equipment subsequently manufactured.

12 The marking of the product shall include the following :

Ⓔx II 3 G Ex ic IIC T4 Gc -55°C ≤ Ta ≤ +110°C

SGS Baseefa Customer Reference No. **5943** Project File No. **16/0596**

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R S SINCLAIR pp D BRADLEY
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 **Schedule**

14 **Certificate Number Baseefa17ATEX0069X**

15 Description of Product

The HS-100IC3 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 fully welded stainless steel enclosure.

Electrical connections are made to the apparatus either via a connector or via an integral cable.

The equipment has the following terminal parameters:

Connector Only	
Ui =	25.2V
Ii =	146mA
Pi =	0.92W
Ci =	1.0nF
Li =	0µH

10m of cable	
Ui =	25.2V
Ii =	146mA
Pi =	0.92W
Ci =	9.9nF
Li =	7.1µH

92m of cable	
Ui =	25.2V
Ii =	146mA
Pi =	0.92W
Ci =	83nF
Li =	66µH

16 Report Number

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17 Specific Conditions of Use

1. When fitted with an integral cable, the flying lead terminations must be afforded a degree of protection of at least IP20.

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
M06-067A	1-6	A	04/04/17	General Arrangement and Product information for Category 3, Group II accelerometers.
P02-003	1	B	07.06.07	AC PCB Component Layout
P03-003	1	B	12.06.07	Inner Module PCB Circuit
HS-100IC3	1	A	24/04/17	HS-100IC3 Schematic
M06-002-A	1	A	15/06/07	Zener Diode Arrangement

These drawings are common to, and held with, IECEx BAS 17.0054X.