



## EC - TYPE EXAMINATION CERTIFICATE

### Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

- 1 EC - Type Examination Certificate Number: **Baseefa07ATEX0144X**
- 2 Equipment or Protective System: **HS-100 Series Accelerometer**
- 3 Manufacturer: **Hansford Sensors Ltd**
- 4 Address: **Saunderton, Bucks, HP14 4JE**
- 5 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- 6 Baseefa (2001) Ltd., Notified Body number 1180, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- 7 The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR07.0076/00**
- 8 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
EN 60079-0: 2006      EN 60079-11: 2007      EN 61241-0: 2006      EN 61241-1: 2004  
except in respect of those requirements listed at item 18 of the Schedule.
- 9 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- 10 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- 11 The marking of the equipment or protective system shall include the following :

#### See Schedule

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa Customer Reference No. **5943**

Project File No. **07/0288**

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

#### Baseefa

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R S SINCLAIR  
DIRECTOR  
On behalf of  
Baseefa (2001) Ltd.



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## Schedule

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Certificate Number Baseefa07ATEX0144X

### 15 Description of Equipment or Protective System

The HS-100 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<sup>3</sup>. 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 marking of the equipment shall include the following:

⊕ II 1GD

Ex ia IIC T4 (-55°C ≤ Ta ≤ +110°C)

Ex tD A20 IP60 T130°C (-55°C ≤ Ta ≤ +110°C)

or

⊕ II 1GD

Ex ia IIC T6 (-55°C ≤ Ta ≤ +60°C)

Ex tD A20 IP60 T80°C (-55°C ≤ Ta ≤ +60°C)

The apparatus with 100m of integral cable has the following terminal parameters:

$$U_i = 28V$$

$$I_i = 93mA$$

$$P_i = 0.65W$$

$$C_i = 41nF$$

$$L_i/R_i = 15.4\mu H/\Omega$$

### 16 Report Number

GB/BAS/ExTR07.0076/00

### 17 Special Conditions for Safe Use

- 1 The free end of the cable on the integral cable version of the apparatus must be terminated in an appropriately certified dust proof enclosure.

### 18 Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.



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**19 Drawings and Documents**

Number	Sheet	Issue	Date	Description
P02-003	1 of 1	B	07.06.07	AC PCB Component Layout
P03-003	1 of 1	B	12.06.07	Inner Module PCB Circuit
HS100.IS	1 of 1	A	12.06.07	HS100I Schematic
M06-002-A	1 of 1	A	15.06.07	Zener Diode Arrangement
M06-001A	1 to 5	A	15.06.07	General Arrangement and Product Information for Group I and Group II Accelerometers

These drawings are also associated with IECEx BAS07.0035X, IECEx BAS07.0037 and Baseefa07ATEX0149 and held with IECEx BAS07.0035X.