IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx ITA 11.0013X issue No.:0	Certificate history:
Status:	Current	
Date of Issue:	2011-06-30	Page 1 of 4

Applicant: **Hansford Sensors Ltd**
Artisan
Hillbottom Road
Sands Industrial Estate
Buckinghamshire
HP12 4HJ
United Kingdom

Electrical Apparatus: **HS-100A Series Accelerometer**
Optional accessory:

Type of Protection: **Intrinsic safety, Dust ingress protection**

Marking: **IECEx ITA 11.0013X**
Ex ia I (-55°C ≤ Ta ≤ +110°C)

Approved for issue on behalf of the IECEx Certification Body:

Position:

Signature:
(for printed version)

Date: 30-06-2011

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

TUV Rheinland Australia Pty. Ltd
4 - 6 Second Street
Bowden SA 5007
Australia

TÜVRheinland®

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Date of Issue: **2011-06-30** Issue No.: **0**

Manufacturer: **Hansford Sensors Ltd**
Artisan
Hillbottom Road
Sands Industrial Estate
Buckinghamshire
HP12 4HJ
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:
The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR07.0076/00
GB/BAS/ExTR08.0237/00
GB/BAS/ExTR11.0045/00

Quality Assessment Report:

GB/BAS/QAR07.0040/02

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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^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.

Variations of the apparatus are identifed by the following:

HS-100ASxxxyyzz Where

S = 90^o Side exit
xxx = Output sensitivity in mV/g
yy = cable/connector details
zz = mounting thread options

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The Ci of the non-fused version of the equipment (HS-100Mxxxxxxx and HS-100MSxxxxxxx) when fitted with 92m of cable has been increased from 41nF to 83nF.

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EQUIPMENT(continued):

The apparatus with 92m of integral cable has the following terminal parameters:
Ui = 28V
Ii = 93mA
i = 0.65W
Ci = 83nF
Li/Ri = 15.4µH/Ω

Manufacturer's Drawings

Title:	Drawing No.:	Rev. Level:	Date:
HS100I SCHEMATIC	HS100.IS	A	2007/06/12
General Arrangement And Product Information For Group I and Group II Accelerometers	M06-001-BSheet 1 & 2of 5	B	2011/01/13
Zener Diode Arrangement	M06-002-A	A	2007/06/15
Label Information For ITACS Group I HS-100A and HS-100AS	M06-039ASheets 1 & 2 of 2	A	2011/05/23
AC PCB COMPONENT LAYOUT	P02-003	B	2007/06/07
INNER MODULE PCB CIRCUIT	P03-003	B	2007/06/12