



# 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](http://www.iecex.com)

Certificate No.: IECEx SIR 09.0104 issue No.:2  
Status: Current  
Date of Issue: 2011-09-05 Page 1 of 4

Certificate history:  
Issue No. 2 (2011-9-5)  
Issue No. 1 (2010-10-25)  
Issue No. 0 (2009-9-9)

Applicant: **H & B Sensors Limited**  
Odyssey House  
Bognor Regis  
West Sussex PO22 9RH  
United Kingdom

Electrical Apparatus: **Type 50 Series Sensor Head.**  
*Optional accessory:*

Type of Protection: **Flameproof and Dust**

Marking: **Ex d IIC T6 Gb Tamb +55°C  
Ex t IIIC T85°C Db IP68 Tamb +55°C  
or  
Ex d IIC T5 Gb Tamb +70°C  
Ex t IIIC T100°C Db IP68 Tamb +70°C  
or  
Ex d IIC T4 Gb Tamb +105°C  
Ex t IIIC T135°C Db IP68 Tamb +105°C  
or  
Ex d IIC T3 Gb Tamb +170°C  
Ex t IIIC T200°C Db IP68 Tamb +170°C**

Approved for issue on behalf of the IECEx  
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:  
(for printed version)

Date:

2011-09-05

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](http://www.iecex.com).

Certificate issued by:

**SIRA Certification Service**  
Rake Lane  
Eccleston  
Chester  
CH4 9JN  
United Kingdom

**sira**  
CERTIFICATION



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Manufacturer: **H & B Sensors Limited**  
Odyssey House  
Bognor Regis  
West Sussex PO22 9RH  
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:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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/SIR/ExTR09.0136/00](#)

[GB/SIR/ExTR10.0247/00](#)

[GB/SIR/ExTR11.0183/00](#)

##### Quality Assessment Report:

[GB/SIR/QAR09.0015/00](#)

[GB/SIR/QAR09.0015/01](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The Series 50 Ex d Flameproof Head is a general purpose enclosure intended for use with temperature measuring equipment typically in the form of thermocouples or platinum resistance thermometers, temperature transmitters or terminal blocks. It may also be fitted with a pair of float switch assemblies and used as a liquid level probe. It is of cylindrical shape and has a two-part construction with a threaded lid screwing into the main base assembly. The lid comes in three variants, two low cap variants and a high cap variant. The high cap variant and one of the low cap variants has a toughened soda lime glass window, this is retained by means of a ceramic cement, 'Autostic FC', and a threaded locking ring. This window allows a loop powered display in the high cap variant and a temperature indicator in the low cap variant to be viewed. The base comes in three variants, either one side-threaded cable entry point with one entry on the bottom consisting of a cylindrical and a threaded joint, two side-threaded cable entry points with one entry on the bottom consisting of a cylindrical and a threaded joint or two side-threaded cable entry points only. All cable entry points are intended to be used with suitably dimensioned and certified cable entry components, the cable entry threadforms may be either M20 x 1.5 or ½" NPT.

### CONDITIONS OF CERTIFICATION: NO



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

<b>Issue 1 – this Issue introduced the following changes:</b>	
1	The machining details were changed to include an internal mounting bracket.
2	A dual entry head with both cables entries on the same side was recognised.
<b>Issue 2 – this Issue introduced the following changes:</b>	
1	For the Type 52 Sensor Head only, the specification of the holes provided for the internal earth facility, the external earth facility and the internal tapped mounting holes were defined more clearly, in addition, the size of some of the holes was changed.