



# 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 EMT 17.0013X

Issue No: 0

Certificate history:

Issue No. 0 (2017-11-21)

Status: **Current**

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Date of Issue: **2017-11-21**

Applicant: **H&B Sensors Ltd.,**  
Odyssey House,  
Durban Road,  
Bognor Regis,  
West Sussex,  
PO22 9RH  
**United Kingdom**

Equipment: **HSB4400 & HSB4600**

*Optional accessory:*

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia IIC T4 Ga

Ex ia IIIC T135 Da

*Approved for issue on behalf of the IECEx  
Certification Body:*

Stephen Winsor

*Position:*

Certification Manager

*Signature:  
(for printed version)*

*Date:*

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:

**Element Materials Technology**  
Unit 1 Pendle Place  
Skelmersdale  
West Lancashire  
United Kingdom





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Manufacturer: **H&B Sensors Ltd.**  
Odyssey House,  
Durban Road,  
Bognor Regis,  
West Sussex,  
PO22 9RH  
**United Kingdom**

Additional 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*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/EMT/ExTR17.0015/00](#)

Quality Assessment Report:

[GB/SIR/QAR09.0015/05](#)



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## Schedule

### EQUIPMENT:

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

The HBS4400 and the HBS4600 are intrinsically safe field mounted temperature transmitters. The device transmits temperature data remotely over a 4 – 20 mA current loop. The equipment is completely encapsulated except for the intrinsically safe I/O terminals and the connector to an external USB configuration device (IECEX TRC 17.0014X). The only difference between the two models is that the HBS4600 features additional components to enable HART communications.

When operating in the field, the equipment is to be powered only by an intrinsically safe supply.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. For gas applications, the HBS4400 & HBS4600 temperature transmitters must be mounted in an ATEX/IECEX approved enclosure rated for IP54 and located in an area where the enclosure will not be subject to impact or friction.
2. For dust applications, the HBS4400 & HBS4600 temperature transmitters must be mounted in a suitably ATEX or IECEx certified enclosure appropriate for the zone of end use.
3. The ambient temperature range of the enclosure will limit the permitted ambient range of the overall equipment. Refer to enclosure certificate.
4. Only suitable for connection to thermocouples, RTD temperature sensors or slide wire resistance devices. They shall meet the requirements for simple apparatus as per IEC 60079-11 clause 5.7 and shall meet the dielectric withstanding requirements of IEC 60079-11 clause 6.3.13

### Annex:

[Annex to IECEx EMT 17.0013X is 0.pdf](#)