

1 EU - TYPE EXAMINATION CERTIFICATE

2 Product or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU – Annex III

3 EU - Type Examination Certificate No.: **EMT15ATEX0068X**

4 Product: **Type 50 Head Series of Ex certified assemblies:
Type 50, Type 51, Type 53**

5 Manufacturer: **H&B Sensors Ltd**

6 Address: **Odyssey House, Durban Road, Bognor Regis, West Sussex, PO22 9RH,
United Kingdom**

7 This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Element Materials Technology, Notified Body number 0891, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the Directive.

The examination and test results are recorded in the confidential report **TRA-027550-33-00A**.

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 section 18 of the schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

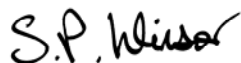
12 The marking of this product shall include the following:

 **II 1 G D**

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.



S P Winsor, Certification Manager

Issue date: 2016-06-08

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CSF355 3.0

13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 EMT15ATEX0068X

15 Description of Product

Each Type 50 Head Series assembly comprises a metal enclosure housing a certified temperature transmitter and an optional indicator with a sensor, or terminal blocks and a sensor. The sensor is typically an RTD or thermocouple classed as simple apparatus. An assembly is supplied by a certified intrinsically safe barrier with output parameters not exceeding $U_o=28V$, $I_o=100mA$ and $P_o=700mW$.

The type 50 is a single entry enclosure, the type 51 is a dual entry enclosure and the type 53 is a dual entry enclosure for wall or pipe mounting.

| Table of entity parameters | |
|----------------------------|--|
| Parameter | Channel 1 |
| U _i | 28V |
| I _i | 100mA |
| P _i | 700mW |
| C _i | See individual Transmitter certificate |
| L _i | See individual Transmitter certificate |

16 Test report No. (associated with this certificate issue): TRA-027550-33-00A.

17 Specific Conditions of Use

1. Equipment must be installed such that risk of impact or abrasion of light metal enclosure is avoided. User must regularly check for signs of damage to exterior finish and replace the equipment should signs of damage be apparent.
2. The equipment may be installed in conjunction with an RTD or Thermocouple transmitter and supplied from a suitably certified Zener barrier or galvanic isolator with output parameters not exceeding $U_o=28V$, $I_o=100mA$ and $P_o=700mW$.
3. The Capacitance and Inductance or Inductance/Resistance (L/R) ratio of the Hazardous Area Cables must not exceed the values calculated from the C, L and L/R values permitted by the barrier minus any C_i and L_i of the Hazardous Area Equipment.
4. When installing devices any special conditions required by the transmitter must be followed.
5. A full copy of Certificate EMT 15ATEX 0068X is available upon request or to download at www.hbsensors.com
6. The relevant transmitter certificate will be supplied with the connection head. For L_i, C_i, U_o, I_o, P_o, C_o and L_o Parameters refer to supplied transmitter certificate.

18 Essential Health and Safety Requirements (Directive Annex II)

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:

| <u>Clause</u> | <u>Subject</u> |
|---------------|----------------|
| None | None |

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT15ATEX0068X

19 Drawings and Documents

The list of controlled manufacturer's drawings and documents is given in Appendix A to this schedule.

20 Routine Tests

1. The electrical circuit in the hazardous area must be capable of withstanding an A.C test voltage of 500 Volts R.M.S to earth or frame of the apparatus for one minute. (Not applicable if galvanic isolators are used) as per EN 60079-11:2012 Clause 6.3.13

21 Specific Conditions for Manufacture

None

22 Photograph 1- Overview of Type 50 Head



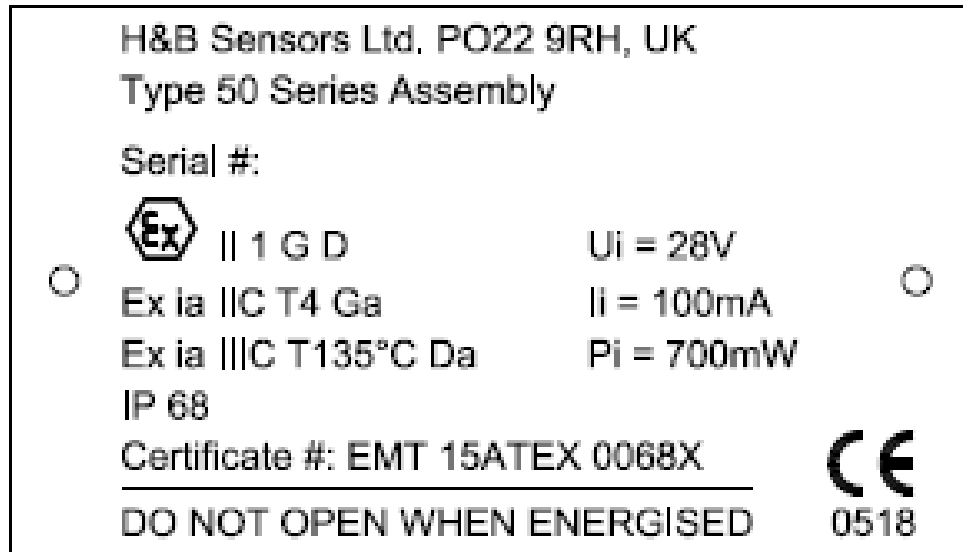
Photograph 2 – Overview of Type 51 Head



Photograph 3 – Overview of Type 53 Head



23 Details of Markings



24 Details of Variations to this Certificate

- None

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: **TRA-027550-32-00**.

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body 0891 is the designation for Element Materials Technology Warwick Ltd (formerly known as TRaC Global Ltd).

CONTINUATION OF SCHEDULE TO CERTIFICATE EMT15ATEX0068X

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| APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS |
|---|

| Title: | Drawing No.: | Rev. Level: | Date: |
|---|---------------------|--------------------|--------------|
| Type 50 series ATEX Ex ia Head instructions | * | 001 | June 2016 |
| Type 50 series Label | HBS/13/9174 | A | 2016-06-01 |
| System Diagram for temperature transmitter | HBS/13/9175 | A | 2016-06-01 |
| Type 50 series connection Head transmitter assembly | HBS/13/9176 | A | 2016-06-01 |
| Type 50 series connection Head transmitter parameters | HBS/13/9200 | A | 2016-06-01 |
| NBR70 'O' Ring Part No. 192074 | HBS/13/9195 | A | 2016-06-01 |

*Denotes no information provided