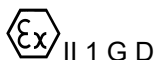




EU Type Examination Certificate CML 20ATEX2111X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **HBS5600 Universal Temperature Transmitter/Indicator**
- 3 Manufacturer **H&B Sensors Ltd**
- 4 Address Odyssey House,
Durban Road,
Bognor Regis, West Sussex, PO22
9RH, UK
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, 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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:
EN IEC 60079-0:2018 EN 60079-11:2012
- 10 The equipment shall be marked with the following:



II 1 G D

Ex ia IIC T4 Ga

Ex ia IIIC T135°C Da

Ta= -40°C to +85°C



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11 Description

The HBS5600 Universal Temperature Transmitter/Indicator is a HART 5 upwards (generic device) compatible universal temperature transmitter with display. It accepts RTD, Thermocouple, Potentiometer or millivolt input signals and converts them to the industry standard (4 to 20) mA transmission signal.

The HBS5600 Universal Temperature Transmitter/Indicator consists of polyurethane based potted main and display PCBs, housed in a polycarbonate and ABS sub-assembly. The sub-assembly will be fitted inside a separately certified aluminium or stainless-steel enclosure with or without a silicone RTV cemented glass windowed lid and nitrile O-rings.

When operating in the field, the equipment is to be powered only by an intrinsically safe supply. The equipment has the following parameters:

$$U_i = 30 \text{ Vdc}$$

$$I_i = 100 \text{ mA}$$

$$P_i = 750 \text{ mW}$$

$$C_i = 0$$

$$L_i = 0$$

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	22 Dec 2020	R13146A/00	Issue of prime certificate

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. The HBS5600 Temperature Transmitter shall be provided with a separately certified ATEX enclosure. The enclosure may be approved for any Zone provided it meets the following requirements, and a copy of the installation documents for the separately certified enclosure shall be provided with the equipment.
 - Suitable for an ambient temperature range of at least -40°C to $+85^{\circ}\text{C}$, and if applicable, a service temperature of $+100^{\circ}\text{C}$.
 - Has an ingress protection rating of at least IP54.
 - Does not have any electrostatic hazard warnings.



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- iii. Where the separately certified enclosure provided with the equipment contains, by mass, more than 10% in total of aluminium, magnesium, titanium and zirconium, the installer/user shall be made aware of this and instructions shall detail the specific conditions of use with regard to protecting the enclosure from impact and friction.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. The HBS5600 Temperature Transmitter is only suitable for connection to Thermocouple(s), RTD temperature sensor(s) or slide wire resistance devices or other simple apparatus. They shall conform to the requirements for simple apparatus as defined in EN 60079-11 clause 5.7 and shall meet the dielectric withstanding requirements of EN 60079-11 clause 6.3.13. The insulation must be capable of withstanding an r.m.s a.c. test voltage of $2U + 1000V$, a minimum of $1500V$ r.m.s, where U is the sum of the voltages of the intrinsically safe and the non-intrinsically safe circuit.
- ii. Connections to the separately certified enclosure shall be suitable for the protection concepts of the enclosure and maintain the minimum ingress protection rating of IP54.
- iii. When connected to sensors measuring temperatures within a process or location, the installer shall ensure the temperature transmitter module is not exposed to temperatures outside the ambient temperature range of $-40^{\circ}C$ to $+85^{\circ}C$.
- iv. The HBS5600 Temperature Transmitter may be fitted inside an enclosure having a material composition containing by mass more than 10% in total of aluminium, magnesium, titanium and zirconium. Where this is the case, the installation shall protect the enclosure from impacts and friction.
- v. The equipment shall only be configured by means of the HBSUSB9 configurator, covered under EMT 17ATEX0037X; connection shall be in the safe area only. Additionally, the HBS5600 Temperature Transmitter may be configured in hazardous area via HART communication.
- vi. A copy of the instructions can be downloaded at www.hbsensors.com.

Certificate Annex

Certificate Number CML 20ATEX2111X
Equipment HBS5600 Universal Temperature Transmitter/Display
Manufacturer H&B Sensors Ltd



The following documents describe the equipment or component defined in this certificate:

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Drawing No	Sheets	Rev	Approved date	Title
HBS-00-01549	1 of 1	-	22 Dec 2020	HBS5600 Label