

EU-TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] EU-Type Examination Certificate Number: **UL 20 ATEX 2421X Rev. 0**
- [4] Product: **Vibration Sensors HE200, HE205, HE250 and HE255**
- [5] Manufacturer: **HAUBER-Elektronik GmbH**
- [6] Address: **Fabrikstr. 6, 72622 Nürtingen, Germany**
- [7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **DK/ULD/ExTR20.0022/00**.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018 EN 60079-1: 2014 EN 60079-31:2014**
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe 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 the certificate.
- [12] The marking of the product shall include the following:

II 2 G Ex db IIC T4 Gb
 II 2 D Ex tb IIIC T135 °C Db

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2021-05-28

Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



[13]

[14]

Schedule

EU-TYPE EXAMINATION CERTIFICATE No.

UL 20 ATEX 2421X Rev. 0

[15] **Description of Product**

Vibration Sensors HE200, HE205, HE250 and HE255
 Enclosed Type, Vibration Sensor, measuring and monitoring absolute bearing vibrations/temperature in machine.


HE200, HE205, HE250 or HE255, models HE200.01.xx.xx.00.xxx, HE255.01.xx.xx.02.xxx, HE205.01.xx.xx.00.xxx, HE255.01.xx.xx.02.xxx, HE250.01.xx.xx.00.xxx, HE255.01.xx.xx.02.xxx, HE255.01.xx.xx.00.xxx and HE255.01.xx.xx.02.xxx, where x is any number or character.

The HE200 vibration control is used for measuring and monitoring absolute bearing vibrations in machines. It has one analogue output and two potential-free switching contacts.
 The HE205 vibration control is used for measuring and monitoring vibration acceleration in machines. It has one analogue output and two potential-free switching contacts with window function.
 The HE250 vibration control is used for measuring and monitoring absolute bearing vibrations in machines and provides a bearing status parameter. It has two analogue outputs and two potential-free switching contacts.
 The HE255 vibration control is used for measuring and monitoring vibration acceleration in machines and provides a bearing status parameter. It has two analogue outputs and two potential-free switching contacts with window function.

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1.) and 5.) to the scope of EN 60079-28:2015.

Temperature range

The Vibration Sensors HE200, HE205, HE250 and HE255 are for mounting to process lines running adjacent to the enclosure. The temperature of the process line has a temperature range of -40°C to +125°C.

Coding		HE200.01 .xx.xx.xx.00 .xxx	HE255.01 .xx.xx.xx.02 .xxx	HE205.01 .xx.xx.xx.00 .xxx	HE255.01 .xx.xx.xx.02 .xxx	HE250.01 .xx.xx.xx.00 .xxx	HE255.01 .xx.xx.xx.02 .xxx	HE255.01 .xx.xx.xx.00 .xxx	HE255.01 .xx.xx.xx.02 .xxx
Measuring head temperature T_M Ambient temperature T_A	-40 °C ≤ T_M ≤ 85 °C -40 °C ≤ T_A ≤ 60 °C	x	x		x		x		
	-35 °C ≤ T_M ≤ 125 °C -35 °C ≤ T_A ≤ 60 °C								
	-20 °C ≤ T_M ≤ 125 °C -20 °C ≤ T_A ≤ 60 °C		x	x	x	x	x	x	x
 II 2G Ex db IIC T4 Gb II 2D Ex tb IIIC 135°C Db	UL 20 ATEX 2421X	x	x	x	x	x	x	x	x

Electrical data

24±10%Vdc, 100mA; Potential free switching contact 2 x 30Vdc/1.0A;
 HE200, HE205 Series: Analog Output 1 x 4..20mA
 HE250, HE255 Series: Analog Output 2 x 4..20mA

Routine tests

Routine tests according to EN 60079-1 cl. 16 are not required, as the enclosures have been successfully tested at four times the reference pressure.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- The ambient temperature range is between -40°C and +60°C. The measuring head service temperature range is between -40°C and +125°C. Model differences must be observed.
- Repair of flameproof joints is not permitted. A statement, e.g. "Do not repair flameproof joints." Shall be stated in the manual.
- Integration of the potential equalization is carried out via installation, see installation instructions for details.
- The cable glands are tested with a reduced tensile force (25 %) in accordance with clause A.3.1 of IEC 60079-0 and may only be used for fixed installation of Group II apparatus. The user shall ensure adequate clamping of the cable.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.



[13]


[14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
UL 20 ATEX 2421X Rev. 0

Additional information

The Vibration Sensors HE200, HE205, HE250 and HE255 have in addition passed the tests for Ingress Protection to IP 66/67 in accordance with EN60529:1991+A1:2000+A2:2013.



The trademark  will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.