



[1]

UNITED KINGDOM CONFORMITY ASSESSMENT
UK-TYPE EXAMINATION CERTIFICATE

[2]

**Product or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

[3] UK-Type Examination Certificate No.: **UL22UKEX2479X 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 (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), 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 Schedule 1 of the Regulations.
The examination and test results are recorded in the confidential report **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

Except in respect of those requirements listed at section 19 of the schedule to this certificate.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the Schedule to this certificate.

[11] This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this 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 Officer
Andrew Moffat

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 UKEx 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 Regulations. 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: 2022-10-31

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK
Phone : +44 (0)1256 312100



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Schedule

UK-TYPE EXAMINATION CERTIFICATE No.

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[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 Schedule 1 clause 16 of the Regulation 2016 No. 1107 (as amended by UKSI 2019:696) is covered in this certificate based on Exception 1) and 5) to the scope of EN 60079-28:2015.

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.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	HE255.01.xx.xx.02.xxx
Measuring head temperature T_M Ambient temperature T_A	$-40\text{ °C} \leq T_M \leq 85\text{ °C}$ $-40\text{ °C} \leq T_A \leq 60\text{ °C}$	X		X		X		X	
	$-35\text{ °C} \leq T_M \leq 125\text{ °C}$ $-35\text{ °C} \leq T_A \leq 60\text{ °C}$								
	$-20\text{ °C} \leq T_M \leq 125\text{ °C}$ $-20\text{ °C} \leq T_A \leq 60\text{ °C}$		X		X		X		X
	II 2G Ex db IIC T4 Gb II 2D Ex tb IIIC 135°C Db	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.

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Test Report No. (associated with this certificate issue)

The test report no. is provided under item no. [8] on page 1 of this UK-Type Examination Certificate.

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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 EN IEC 60079-0 and may only be used for fixed installation of Group II apparatus. The user shall ensure adequate clamping of the cable.

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Conditions of certification:

Where ATEX certified Ex Components or Ex Equipment are used, it is the responsibility of the manufacturer to ensure that only Ex Components or Ex Equipment having equivalent UKEx certification are used after the permission to accept such ATEX certified Ex Component or Ex Equipment is withdrawn.

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Essential Health and Safety Requirements (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

The Vibration Sensors HE200, HE205, HE250 and HE255 have in addition passed the tests for Ingress Protection to IP66/67 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 approved body concerning all modifications to the technical documentation as described in Annex III to UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.

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Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Operating instructions - Vibration Monitoring Unit - Type HE200	M001-HE200	-	2022-06-30
Operating instructions - Vibration Monitoring Unit - Type HE205	M001-HE205	-	2022-06-30
Operating instructions - Vibration Monitoring Unit - Type HE250	M001-HE250	-	2022-06-30
Operating instructions - Vibration Monitoring Unit - Type HE255	M001-HE255	-	2022-06-30
Layout and Schematics of models HE200 and HE205	HE200-205-HW8-REV34C-2021-05	V34C	2021-05-26
Layout and Schematics of models HE250 and HE2555	HE250-255-HW2-REV5D-2021-05	5D	2021-05-26
Gehäuseboden mit M12 Gewinde für Kabelverschraubung	01.117.013	0.5	2021-04-21
Gehäuseboden mit M16 Gewinde für M12-Stecker	01.117.012	0.5	2021-04-21
Gehäuseboden Pepperl-Fuchs mit M12 Gewinde für Kabelverschraubung	01.117.019	0.2	2021-04-21
Gehäuseboden Pepperl-Fuchs Gehäuseboden mit M16 Gewinde für M12-Stecker	01.117.018	02	2021-04-21
Deckel	01.102.002	2.0	2018-12-03
Ansicht Baugruppe	02.117.025	-	2021-03-22
Ansicht Baugruppe	02.117.026	-	2021-03-22
Ansicht Baugruppe	02.117.027	-	2021-03-22
Ansicht Baugruppe	02.117.028	-	2021-03-22
Kabelverschraubung modifiziert	01.112.002	-	2021-03-26
Klemmhülse für Befest. Metallschutzschlauch	01.117.010	1.0	2020-05-05
Hülse für Befestigung des Metallschutzschlauches an Gehäusetyp 117	01.117.009	01	2020-07-13
Hauber Kabel M12 Stecker Hochtemperatur 0,09m V2A	20437-00002-P	-	2020-08-11