IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx ULD 25.0018X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2025-12-12

Applicant: **HAUBER-Elektronik GmbH**
Fabrikstrasse 6
Nürtingen 72622
Germany

Equipment: **Enclosed Type, Vibration Sensors, HE050 and HE055 Series.**

Optional accessory:

Type of Protection: **Increased Safety "ec", Dust Ignition Protection by Enclosure "tc"**

Marking: HE050 Series :

Ex ec IIC T4 Gc

Ex tc IIIC T105°C Dc

HE055 Series :

Ex ec IIC T3 Gc

Ex tc IIIC T125°C Dc

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

Position: **Staff Engineer**

Signature:
(for printed version)

Date:
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

UL Solutions (Demko)
Borupvang 5A
Ballerup DK-2750
Denmark

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Manufacturer: **HAUBER-Elektronik GmbH**
Fabrikstrasse 6
Nürtingen 72622
Germany

Manufacturing locations: **HAUBER-Elektronik GmbH**
Fabrikstrasse 6
Nürtingen 72622
Germany

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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:

DK/ULD/ExTR25.0018/00

Quality Assessment Report:

DK/ULD/QAR21.0004/04

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The HE050 type vibration monitoring unit is an IO-Link sensor for measuring of vibration velocity, vibration acceleration and temperature and is used to measure and monitor absolute bearing vibrations in machines. It has the following features:

- Output 1: IO-Link or digital switching output.
- Output 2: Analogue current output (4…20 mA) or digital switching output.
- Adjustable frequency range 10 Hz…. 1000 Hz.

The HE055 type vibration monitoring unit is an IO-Link sensor for measuring of vibration velocity, vibration acceleration and temperature and is used to measure and monitor absolute bearing vibrations in machines. It has the following features:

- Output 1: IO-Link or digital switching output.
- Output 2: Analogue current output (4…20 mA) or digital switching output.
- Generation of crest factor.
- Adjustable frequency range 1 Hz…. 1000 Hz.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The ambient temperature range (Tamb) is between -40°C and +80°C. The measuring head temperature range (TM) is between -40°C and +80°C.
- Integration of the potential equalization is carried out via installation, see installation instructions for details.
- The device shall be connected in compliance with IEC 60079-14 requirements, providing and maintaining degree of protection at least IP54 for EPL Gc and at least IP6x for EPL Dc according to IEC 60079-0 requirements – See instructions.
- External panel mounted (M12) connector shall be protected from UV light (for example, daylight or light from luminaires) when installed.

Annex:

Annex to IECEx ULD 25.0018X Issue 0.pdf

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TYPE DESIGNATION

Product Nomenclature:

HE050.	2.	X.	0.	XXX
I	II	III	IV	V

I- HE Sensor Series:

HE050 = Vibration sensor with HE050 PCB inside

HE055 = IO link sensor with crest value development with HE055 PCB inside

II- Certification:

2 = ATEX/IECEx Zone 2/22

3 = ATEX/IECEx Zone 2/22 + SIL1

III- IO link:

One alphanumeric character to specify IO-Link, not safety relevant

IV- Housing material:

0 = 1.4305 (V2A) with fastening M8 x 8 mm; incline 1.25 (Standard)

1 = 1.4404 (V4A) with fastening M8 x 8 mm; incline 1.25 mm

2 = 1.4462 duplex stainless steel with fastening M8 x 8 mm; incline 1.25 mm

V- Software parameter settings (factory default)

Up to three alphanumeric characters to specify software setting, not safety relevant

PARAMETERS RELATING TO THE SAFETY

HE050 series:

Input: 18-30V dc, 700mA max.

Output Out 1 (pin 4): IO-Link or Potential free switching 100mA

Output Out 2 (pin 24): analog output, 4-20mA or Potential free switching 500mA

HE055 series:

Input: 18-30V dc, 320mA max.

Output Out 1 (pin 4): IO-Link or Potential free switching 100mA

Output Out 2 (pin 2): analog output, 4-20mA or Potential free switching 100mA

Ingress protection according to IEC 60079-0: IP66/IP67 only in connected state.

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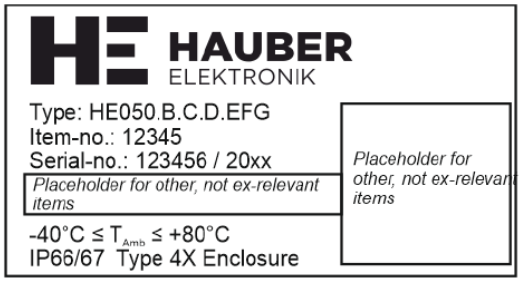
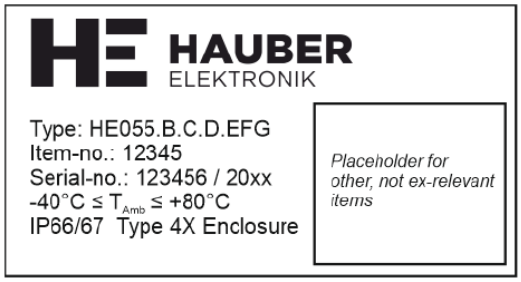
MARKING

Marking has to be readable and indelible; it has to include the following indications:

Front





Rear