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 DNV 21.0018X**

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Certificate history:
Issue 0 (2021-06-11)

Status: **Current**

Issue No: 1

Date of Issue: 2023-01-31

Applicant: **Vishay Nobel AB**
Box 423
69127 Karlskoga
Sweden

Equipment: **Load Cell with integrated amplifier(s).**

Optional accessory:

Type of Protection: **Intrinsic safety "Ex i"**

Marking: Ex ia I Ma
Ex ia IIC T5 Ga
Ex ia III C T84°C Da
-45°C < Ta < +70°C

Approved for issue on behalf of the IECEx Certification Body: **Asle Kaastad**

Position: **Certification Manager**

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:

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway

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Date of issue: 2023-01-31 Issue No: 1

Manufacturer: **Vishay Nobel AB**
Box 423
69127 Karlskoga
Sweden

Manufacturing locations: **Vishay Nobel AB**
Gjuterigatan 12
693 35 Degerfors
Sweden

Vishay Nobel AB
Skrantahöjdsvägen 40
691 46 Karlskoga
Sweden

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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 Reports:

NO/DNV/ExTR21.0018/00 NO/DNV/ExTR21.0018/01

Quality Assessment Reports:

GB/BAS/QAR14.0003/00 GB/BAS/QAR14.0003/01 GB/BAS/QAR14.0003/02
GB/BAS/QAR14.0003/03 GB/BAS/QAR14.0003/04 GB/BAS/QAR14.0003/05

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

KxxD-FA(D) is a series of load cells, of different size. This certificate covers the KIMD, KOSD and KEND types. They incorporate resistive strain gauges, measuring the shear force (KIMD, KOSD) and tension (KEND). They are equipped with one or two integrated amplifiers, each with 2-wire 4-20mA current loop output. All housed in an IP67 approved enclosure.

These load cells are approved for use in an explosive gas and dust area, provided that suitable intrinsic safety barriers are used.

SPECIFIC CONDITIONS OF USE: YES as shown below:
- The load cell shall only be connected to equipment that has adequate safety parameters according to the load cell's safety parameters.

- The models KIMD-FA(D) have outside potted cavities. No rubbing on these non-metallic surfaces are allowed.

- The free end of the connected external cable must be installed such that the terminations are afforded according to Cl. 6.1 and 6.2 of the standard IEC 60079-11.

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Equipment (continued):

Type Identification
The following type identification is included:
- KIMD-FA(D)
- KOSD-FA(D)
- KEND-FA(D)

The FA-versions have one electrical circuit and the FAD-version two separate electrical circuits. For the FAD-version the safety parameters are applicable to each circuit. Connection is made by two-wires, separated from each other in a common external connector or fixed cable for each amplifier.

Safety parameters for intrinsically safe connection:
Maximum input voltage, Ui=30V
Maximum input current, Ii=100mA
Maximum input power, Pi=0.7W
Maximum internal capacitance, Ci=56.5nF
Maximum internal inductance, Li=4.4µH
- Total cable capacitance must not exceed 9.5nF for use in Group IIC.
- Total cable capacitance must not exceed 0.5µF for use in Group IIB and Group III.
- Total cable capacitance must not exceed 3µF for use in Group I.

Degrees of protection (IP Code)
IP67 according to IEC 60529.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Update the marking label and use manual for UKCA certificate.

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Additional information:
This certificate is replacing the IECEx PRE 14.0007X
The IEC 60079-0 is updated to the latest IEC 60079-0:2017 version.