



[1] **EU-TYPE EXAMINATION CERTIFICATE - Translation**

[2] Equipment or protective systems
intended for use in potentially explosive atmospheres, Directive 2014/34/EU

[3] EU-type examination certificate number **IBExU07ATEX1082** | Issue 1

[4] Product: **Monobloc doppler**
Type: **KD*-K***E****** and **KD*-R***E******

[5] Manufacturer: NIVUS GmbH

[6] Address: Im Täle 2
75031 Eppingen
GERMANY

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 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 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 Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-19-3-0179.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN 60079-11:2012
except in respect of those requirements listed at item [18] of the schedule.

[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 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 this certificate.

[12] The marking of the product shall include the following:

II 2G Ex ib IIB T4 Gb
-20 °C ≤ Ta ≤ +50 °C

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By order


Dipl.-Ing. Willamowski



Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2020-10-05

[13] **Schedule**

[14] **Certificate number IBExU07ATEX1082 | Issue 1**

[15] **Description of product**

The monobloc doppler measures by ultrasound level and flow rate, especially inside gullies. The equipment consists of a plastic enclosure with a fitting panel. The electronic components are all side encapsulated embedded. The connection with the associated transmitter is carried out with a fixed cable.

Type designation

KDA-K* ** E * * * * (wedge shape)
KDA-R* ** E * * * * (tube shape)
KDO-K* ** E * * * * (wedge shape, OEM)
KDO-R* ** E * * * * (Tube shape, OEM)
KDS-K* ** E * * * * (wedge shape, solar)
KDS-R* ** E * * * * (tube shape, solar)
* variable manufacturer-specific data

Technical Data

Ambient temperature from -20 °C to +50 °C

Electrical Data

Operating frequency 750 kHz resp. 1 MHz

<u>Power supply circuit</u> (wires: red: V+; blue GND black: shield)	in type of protection Intrinsic Safety Ex ib IIB Ui 10.5 V Ii 880 mA Li negl. Ci negl.
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Signal circuit (RS485) (wires green RxDx-; white RxDx+)	galvanically connected to supply circuit Uss ± 4 V
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Variations compared to previous certificates:

Variation 1

Circuit and layout modifications for the use of current pressure cans

Variation 2

Changes to the mechanical construction, without influence on intrinsic safety

Variation 3

Use of alternative components due to discontinuation

Variation 4

Extension of the type code

Variation 5

The devices also meet the requirements of current standards.

[16] **Test report**

The test results are recorded in the confidential test report IB-19-3-0179 of 2020-10-01.

The test documents are part of the test report and they are listed there.

Summary of the test results

The monobloc doppler type KD*-K* ** E ** * * and KD*-R* ** E ** * * fulfils the requirements of explosion protection of Equipment Group II and Category 2G in type of protection Intrinsic safety for explosive atmospheres of explosion group IIB.

[17] **Specific conditions of use**

None

[18] **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: None

[19] **Drawings and Documents**

The documents are listed in the test report.

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