



[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 **IBExU11ATEX1046 X** | Issue 2

[4] Product: **Pressure measuring device**
Type: AquaBar II and UniBar E II

[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-21-3-0094.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 and 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 1G Ex ia IIC or IIB T4 Ga
 II 1D Ex ia IIIC T135 °C Da

IBExU Institut für Sicherheitstechnik GmbH
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By order

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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, 2021-12-21

[13] **Schedule**

[14] **Certificate number IBExU11ATEX1046 X | Issue 2**

[15] **Description of product**

The pressure measuring devices AquaBar II und UniBar E II are different pressure measurement devices or level probe in stainless steel enclosure with different pressure ports. As measuring cell and evaluation electronic serves a separately approved electronic module. The devices are intended for use in potentially hazardous areas, where Category 1G devices are required. They are supplied by an intrinsically safe power supply of the Category „ia“.

Types:

Equipment	Connection	Design	Enclosure
AquaBar II	cable	immersion probe	stainless steel
UniBar E II	plug	screw-in probe	stainless steel

Technical data

Ambient temperature range: from -20 °C to +70 °C

Electrical data

Supply and signal electric circuit in type of protection Intrinsic Safety Ex ia IIC
(supply + and -)

	U _i	28 V DC
	I _i	93 mA
	P _i	660 mW
effective inner capacity	C _i	negligible
effective inner inductivity	L _i	negligible

plus line inductivities 1 µH/m and line capacities 160 pF/m (cable supplied by the manufacturer)
The supply connections have an inner capacity of max. 27 nF opposite the enclosure.

Variations compared to issue 1 of this certificate:

The device also complies with the current standard EN IEC 60079-0: 2018.

[16] **Test report**

The test results are recorded in the confidential test report IB-21-3-0094 of 2021-12-07.

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

Summary of the test results

The pressure measuring devices AquaBar II and UniBar E II fulfil the requirements of type of protection Intrinsic Safety ‚ia‘ for an electrical equipment of the Equipment Group II, Category 1G and 1D, Explosion Group IIC or IIB and Temperature Class T4.

[17] **Specific conditions of use**

- The equipment designed with connector have to be installed in such a way that the degree of protection IP 20 is always kept.
- The ambient temperature range is fixed from -20 °C to +70 °C.
- The safety and assembly notes contained in the operating instructions have to be observed.
- Dust deposits > 5mm and any dust covering, must be avoided.
- The device may be used in an explosive atmosphere, the apparatus of category 1 requires only operate if there are atmospheric conditions (temperature of -20 °C to +60 °C, pressure of 0.8 bar to 1.1 bar).

[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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