



[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 **IBExU05ATEX1193 X** | Issue 1

[4] Product: **pressure measuring device**
Type: NivuBar Plus II, NivuBar G II and HydroBar G 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-21-3-0107.

[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 T110 °C Da

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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, 2022-04-28

[13] **Schedule**

[14] **Certificate number IBExU05ATEX1193 X | Issue 1**

[15] **Description of product**

The Pressure measuring devices types NivuBar Plus II, NivuBar G II and HydroBar G II screwed probes and immersion probes represent with high-grade steel cover. It serves in intrinsic safety electrical plants for the transformation of a pressure signal in a proportional electrical signal.

Types:

Equipment	Connection	Design	Enclosure
NivuBar Plus II	cable	immersion probe	stainless steel
NivuBar G II	cable	immersion probe	stainless steel
HydroBar G II	plug	screw-in probe	stainless steel

Technical data

Ambient temperature range:

Immersion probe:

from -10 °C to +70 °C

Screw-in probe:

from -25 °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 14 nF

effective inner inductivity

L_i negligible

plus line inductivities 1 µH/m and line capacities 100 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 standards EN IEC 60079-0:2018 and EN 60079-11:2012.

[16] **Test report**

The test results are recorded in the confidential test report IB-21-3-0107 of 2022-04-27.

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

Summary of the test results

The pressure measuring devices type NivuBar Plus II, NivuBar G II und HydroBar G 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 IP20 is always kept.
- The ambient temperature range is fixed from -10 °C or -25 °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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