



[1] **EC-TYPE EXAMINATION CERTIFICATE**

according to Directive 94/9/EC, Annex III

- Translation -

[2] Equipment and Protective Systems intended for use
in Potentially Explosive Atmospheres, **Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **IBExU07ATEX1141**

[4] Equipment: Limit level probes and
Overvoltage protection elements

[5] Manufacturer: NIVUS GmbH

[6] Address: Im Täle 2
75031 Eppingen
Germany

[7] The design of the equipment mentioned under [4] and any acceptable variations thereto are specified in the schedule to this EC-Type Examination Certificate.

[8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with Article 9 of the Council Directive 94/9/EC of 23rd March 1994, certifies that the equipment mentioned under [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-07-3-295 of 19th November 2007.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006 and EN 60079-11:2007.

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.

[11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

[12] The marking of the equipment mentioned under [4] shall include the following:

 **II 2G Ex ib IIB T4**

-40 °C to +60 °C

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Authorized for certifications
- Explosion protection -

By order

(Dr. L. Lösch)



- Seal -
(Identification No. 0637)

Freiberg, 19th November 2007

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.

Schedule

[13]

Schedule

[14] **to EC-TYPE EXAMINATION CERTIFICATE IBExU07ATEX1141**

[15] **Description of the equipment**

The Limit level probes and Overvoltage protection elements are simple, electrical apparatus for use in potentially explosive atmospheres. They are used in intrinsically safe circuits. The electrical connection is carried out via terminals.

The Limit level probes are designed as float switches or multiple level electrodes. The Overvoltage protection is used for the protection of signal lines and components.

Technical Data

Ambient temperature range: -40 °C to +60 °C

Limit level probes *Type:* Float switches (TA) with cable
conductive bar electrodes up to 5-fold
conductive suspension electrodes up to 5-fold

Supply circuit
(Cl. 1 to Cl. 5) for connection to an intrinsically safe
circuit in type of protection Ex ib IIB
 $U_i \leq 30 \text{ V}$
 $I_i \leq 200 \text{ mA}$
 L_i, C_i negligibly low,
plus line inductivities/-capacity
1 $\mu\text{H/m}$ and 100 pF/m, if available

Overvoltage protection elements
Type: *DataPro 2x1 12/12-11 $\mu\text{H-Tr(N)}$*

Input circuit
(Cl. 1 to Cl. 3) for connection to an intrinsically safe
circuit in type of protection Ex ib IIB
 $U_i \leq 15 \text{ V}$
 $I_i \leq 1 \text{ A}$
 $C_i \leq 10 \text{ nF}$
 $L_i \leq 15 \mu\text{H}$

Output circuit
(Cl. 1p to Cl. 3p) the connections 1, 2 and/or 3 are directly connected with
1P, 2P and/or 3P and separated from the earthed parts
Type: *DataPro 2x1 24/24*
SonicPro 3x1 24/24

Input circuit
(Cl. 1 to Cl. 3) for connection to an intrinsically safe
circuit in type of protection Ex ib IIB
 $U_i \leq 28 \text{ V}$
 $I_i \leq 0,2 \text{ A}$
 $C_i \leq 10 \text{ nF}$
 $L_i \leq 55 \mu\text{H}$

Output circuit
(Cl. 1p to Cl. 3p) the connections 1, 2 and/or 3 are directly connected with
1P, 2P and/or 3P and separated from the earthed parts

Safety instruction

At the installation of the intrinsically safe plant in accordance with EN 60079-14:2003, section 12.2.5, the respective type-related maximum values have to be taken into account at the proof of the intrinsic safety.

[16] **Test report**

The test results are recorded in the test report IB-07-3-295. The test documents are listed in the schedule to the test report.

Summary of the test results:

The Limit level probes and Overvoltage protection elements fulfil the requirements of the explosion protection for equipment of the Group II, Category 2G for the Explosion Group IIB in type of protection Intrinsic Safety.

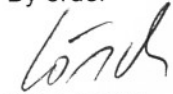
[17] **Special conditions for safe use**

none

[18] **Essential Health and Safety Requirements**

Confirmed by compliance of standards (see [9]).

By order



(Dr. Lösch)

Freiberg, 19th November 2007