



## Translation

# (1) EC-Type Examination Certificate

(2) **- Directive 94/9/EC -**  
**Equipment and protective systems intended for use**  
**in potentially explosive atmospheres**

(3) **BVS 08 ATEX E 121**

(4) **Equipment: Level Measuring System type Nivobob NB 3x00**

(5) **Manufacturer: UWT GmbH**

(6) **Address: 87488 Betzigau, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the test and assessment report BVS PP 08.2192 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 61241-0 2006 General requirements  
EN 61241-1 2004 Protection by enclosures 'tD'

(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 in the appendix to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.  
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

(12) The marking of the equipment shall include the following:

**II 1/2 D Ex tD A20/21 IP66 T<sub>see 15.3.2</sub>**

**DEKRA EXAM GmbH**

Bochum, dated 16. December 2008

Signed: Dr. Jockers

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Certification body

Signed: Dr. Eickhoff

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Special services unit

(13) Appendix to

(14) **EC-Type Examination Certificate**

**BVS 08 ATEX E 121**

(15) 15.1 Subject and type

The Level Measuring System type Nivobob NB 3x00

- NB 3100 – rope version
- NB 3200 – tape version
- NB 3300 – rope version for interface measurement
- NB 3400 – tape version for interface measurement

15.2 Description

The Level detector type Nivobob NB3x00 is a multifunctional unit for discontinuous level monitoring of any inflammable solid and bulky goods and interface levels.

It consists of a two-part aluminium housing (electronic compartment and separated process compartment), wherein the process chamber with internal mechanical components conforms to category 1D whereas the electronic chamber with electrical components conforms to category 2D. The heating can be built in into the electronic chamber as an option.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Supply circuit  
rated voltage  
frequency  
or

AC 98... 253 V (incl. 10% of EN61010)  
50 / 60 Hz  
DC 20... 28 V (incl. 10% of EN61010)

Power consumption (without heater)

max. 70 VA

15.3.1.2 Heating circuit  
Power consumption of the heater

max. 80 W

15.3.1.5 Output

Current output

0/4...20 mA; max. Last – load 500 Ω

Relay contacts (up to 4 SPST)  
Maximum contact rating

AC 250 V / max. 2 A; 500 VA

Electronic counting pulse  
optocoupler

max. DC 30 V, max. 25 mA  
max. DC 30 V, max. 25 mA

Communication Modbus RTU

Communication Profibus DP

### 15.3.2 Thermal data

Maximum surface temperature T at the electronic compartment (category 2D)  
with thermo fuse limited to 128 °C

Housing with integrated process connection

Ambient temperature range * without heating / with heating	Permitted process temperature	Max. surface temperature T
- 20 °C / - 40 °C...+ 60°C	- 40 °C... + 80°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 90°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 100°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 110°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 120°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 130°C	130°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 135°C	135°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 140°C	140°C
- 20 °C / - 40 °C...+ 40°C	- 40 °C... + 150°C	150°C

Housing including temperature extension

Ambient temperature range * without heating / with heating	Permitted process temperature	Max. surface temperature T
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 80 °C	130 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 130 °C	130 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 135 °C	135 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 140 °C	140 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 150 °C	150 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 160 °C	160 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 165 °C	165 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 170 °C	170 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 180 °C	180 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 190 °C	190 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 200 °C	200 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 210 °C	210 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 215 °C	215 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 220 °C	220 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 230 °C	230 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 240 °C	240 °C
- 20 °C / - 40 °C...+ 60 °C	- 40 °C... + 250 °C	250 °C

\* depending on the used cable gland the permitted ambient temperature range can be limited.

### 15.3.3 Degree of protection according to EN 60529

IP 66

(16) Test and assessment report

BVS PP 08.2192 EG as of 16. December 2008

(17) Special conditions for safe use

None

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We confirm the correctness of the translation from the German original.  
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 16. December 2008  
BVS-Hk/Poh A 20080603

**DEKRA EXAM GmbH**



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Certification body



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Special services unit