

Translation

(1) **EU-Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**



(3) **Certificate Number** TÜV 19 ATEX 248529 X **issue:** 00

(4) for the product: Microwave sensors type series
NIVOGUIDE 8100
NIVOGUIDE 3100
NIVOGUIDE 8200

(5) of the manufacturer: **UWT GmbH**

(6) Address: Westendstraße 5
87488 Betzigau
Germany

Order number: 8003007783

Date of issue: 2019-07-15

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 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 ATEX Assessment Report No. 19 203 248529.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-11:2012

EN 60079-26:2015

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 for 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 equipment. These are not covered by this certificate.

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



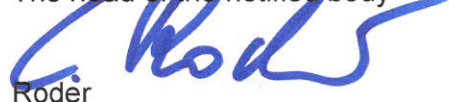
II 1 G Ex ia IIC T6...T1 Ga

II 1/2 G Ex ia IIC T6...T1 Ga/Gb

II 2 G Ex ia IIC T6...T1 Gb

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

The head of the notified body



Rodér

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 19 ATEX 248529 X issue 00**

(15) **Description of product**

The level measuring instrument type series NIVOGUIDE as microwave sensors are used for evaluation of the distance between a product surface and the sensor via high-frequency microwave pulses. The microwave sensors emit high-frequency microwave pulses, which are carried along a measuring rod resp. a measuring cable. The electronics evaluate the delay time of the signals reflected by the product surface to calculate the distance to this surface.

Type code

NIVOGUIDE 8100: NG8100AQ/Y*A/B**1*** *****A/D/N

NIVOGUIDE 3100: NG3100AS*A/B**1*** *****A/D/N

NIVOGUIDE 8200: NG8200BQ/Y*A/B**1**0 *****A/D/N

Electrical data

NIVOGUIDE 8100, NIVOGUIDE 3100, NIVOGUIDE 8200, single chamber housing, Ex i electronics and connection compartment

Supply and signal circuit (Terminals 1[+], 2[-])	in type of protection „Intrinsic Safety“ Ex ia IIC Only for connection to a certified intrinsically safe circuit Maximum values: U _i = 30 V I _i = 131 mA P _i = 983 mW The effective internal capacitance is negligibly small. Effective internal inductance: 5 µH
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NIVOGUIDE 8100, NIVOGUIDE 3100, NIVOGUIDE 8200, double chamber housing, Ex i connection compartment

Supply and signal circuit (Terminals 1[+], 2)	in type of protection „Intrinsic Safety“ Ex ia IIC Only for connection to a certified intrinsically safe circuit Maximum values: U _i = 30 V I _i = 131 mA P _i = 983 mW The effective internal capacitance is negligibly small. Effective internal inductance: 10 µH
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NIVOGUIDE 8100, NIVOGUIDE 3100, NIVOGUIDE 8200, single and double chamber housing, Ex i electronics and connection compartment

Display and adjustment module resp. the interface adapter (Spring contacts)	in type of protection „Intrinsic Safety“ Ex ia IIC Only for connection to the NivoGuide display and adjustment module.
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The intrinsically circuits are safe galvanically separated from the parts which can be earthed.

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Thermal data

If the microwave sensors are used in explosion hazardous areas for EPL Ga; EPL Ga/Gb and EPL Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range (Elektronics/housing)	Medium temperature range at measuring sensor
T6	-40 °C ... +46 °C	-40°C ... +80 °C
T5	-40 °C ... +61 °C	-40°C ... +95 °C
T4	-40 °C ... +70 °C	-40°C ... +130 °C
T3	-40 °C ... +70 °C	-40°C ... +195 °C
T2	-40 °C ... +70 °C	-40°C ... +290 °C
T1	-40 °C ... +70 °C	-40°C ... +440 °C

Low-temperature execution down to -196 °C

If the microwave sensors are used in explosion hazardous areas for EPL Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range (electronics)	Medium temperature range (measuring sensor)
T6	-40 °C ... +46 °C	-196°C ... +80 °C
T5	-40 °C ... +61 °C	-196°C ... +95 °C
T4	-40 °C ... +70 °C	-196°C ... +130 °C
T3	-40 °C ... +70 °C	-196°C ... +195 °C
T2	-40 °C ... +70 °C	-196°C ... +290 °C
T1	-40 °C ... +70 °C	-196°C ... +440 °C

The measuring sensors are allowed to be operated only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).

If no explosion hazardous atmospheres exist, the permissible operating temperatures and pressures have to be taken from the manufacturer's data (manual).

If the measuring sensors are operated at higher medium temperatures as listed in the a.m. table, measures have to be taken, that the danger of ignition caused by hot surfaces is excluded.

The max. permissible temperature at the electronics/housing must not exceed the values as mentioned in the a.m. table.

- (16) Drawings and documents are listed in the ATEX Assessment Report No. 19 203 248529

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(17) Specific Conditions for Use

1. At the plastic parts of the microwave sensors type series NIVOGUIDE 8100, NIVOGUIDE 3100 and NIVOGUIDE 8200 there is a danger of ignition by electrostatic discharge.
Observe manual of the manufacturer and warning label.
2. For EPL Ga resp. EPL Ga/Gb applications, at the metallic parts of the microwave sensors type series NIVOGUIDE 8100, NIVOGUIDE 3100 and NIVOGUIDE 8200 made of light metal there is a danger of ignition by impact or friction.
Observe manual of the manufacturer.
3. For EPL Ga resp. EPL Ga/Gb applications and at risks by pendulum or vibration the respective parts of the microwave sensors type series NIVOGUIDE 8100, NIVOGUIDE 3100 and NIVOGUIDE 8200 have to be secured effectively against these dangers.
Observe manual of the manufacturer.
4. For EPL Ga/Gb applications the medium tangent materials of the microwave sensors type series NIVOGUIDE 8100, NIVOGUIDE 3100 and NIVOGUIDE 8200 have to be resistant to the media.
Observe manual of the manufacturer
5. The ambient temperature range depending on temperature class is to be taken from the operating instructions.

(18) Essential Health and Safety Requirements

No additional ones

- End of Certificate -