



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx BVS 11.0039X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: 2011-05-24 Page 1 of 5

Applicant: **UWT GmbH**  
Westendstraße 5  
87488 Betzigau  
Germany

Electrical Apparatus: **Level limit switch type ROTONIVO RN 300\*, RN 400\*, RN 600\***  
Optional accessory:


Type of Protection: **Equipment protection by flameproof enclosures "d"; Equipment dust ignition protection by enclosure 't'; Equipment protection by increased safety "e"**

Marking: **RN 300\*, RN 400\*:  
Ex t IIIC T\*°C Da/Db  
IP6X \* see thermal data**  
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**RN 600\*:  
Ex d IIC T\* Gb or Ex de IIC T\* Gb  
Ex t IIIC T\*°C Da/Db  
IP 6X \* see thermal data**

Approved for issue on behalf of the IECEx Certification Body: H.-Ch. Simanski

Position: Head of Certification Body

Signature:  
(for printed version)

  
\_\_\_\_\_  
24/5/11  
\_\_\_\_\_

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

DEKRA EXAM GmbH  
Dinnendahlstrasse 9  
44809 Bochum  
Germany

 **DEKRA**  
DEKRA EXAM GmbH



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Manufacturer: **UWT GmbH**  
Westendstraße 5  
87488 Betzigau  
Germany

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended.

#### STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2007-10</b> Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-1 : 2007-04</b> Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
<b>IEC 60079-31 : 2008</b> Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
<b>IEC 60079-7 : 2006-07</b> Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

#### TEST & ASSESSMENT REPORTS:

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

[DE/BVS/ExTR11.0059/00](#)

Quality Assessment Report:

[DE/BVS/QAR11.0007/00](#)



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## Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

#### Model/type reference

Level limit switch ROTONIVO

Basic Type	Series RN 300*	Series RN 400*	Series RN 600*
Dedicated housing	Housing 3 or 4	Housing 3 or 4	Housing 1, 2, d, de
Short extension length	RN 3001	RN 4001	RN 6001
Pipe extension vertical	RN 3002	-	RN 6002
Rope extension	RN 3002-rope	-	RN 6002-rope
Angled extension	RN 3003	-	RN 6003
Pipe extension horizontal	RN 3004	-	RN 6004
Extra short version	RN 3005	-	-

### CONDITIONS OF CERTIFICATION: YES as shown below:

#### Special conditions

The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of IEC 60079-1:2007. For information on the dimensions of the flameproof joints contact the manufacturer.



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## EQUIPMENT(continued):

### Rating

#### Electrical data

Supply AC 24 V, 48 V, 115 V or 230 V  $\pm 15\%$  50/60 Hz  
 Version without rotation control 4 VA  
 Version with rotation control 5 VA

or  
 or Multi voltage DC 24 V  $\pm 15\%$  2.5 W  
 DC 24 V  $\pm 15\%$  2.5 W or  
 AC 115 V  $\pm 15\%$  50/60 Hz 4 VA or  
 AC 230 V  $\pm 15\%$  50Hz 6 VA

or Universal voltage DC 24 V  $\pm 15\%$  4 W or  
 AC 20 ... 230V  $\pm 10\%$  50/60Hz 10 VA

#### Signal and alarm output:

Signal output RN 300\* and RN 400\*: max. 250 V AC, 2 A, 500 VA (cos Phi=1)  
 max. 300 V DC, 2 A, 60 W  
 RN 600\*: max. 250 V AC, 5 A, non inductive  
 max. 30 V DC, 4 A, non inductive  
 or Transistor, max. 0.4 A

Alarm output RN 300\* and RN 400\*: max. 250 V AC, 2 A, 500 VA (cos Phi=1)  
 max. 300 V DC, 2 A, 60 W  
 RN 600\*: max. 250 V AC, 5 A, non inductive  
 max. 30 V DC, 4 A, non inductive

#### Units with extra heat resistor

Supply / resistance AC 230 V / 22 k $\Omega$   
 AC 115 V / 5.6  $\Omega$   
 AC 48 V / 1 k $\Omega$   
 AC 24 V / 220  $\Omega$   
 DC 24 V / 220  $\Omega$

Rotational speed of the motor max. 6 rds/min

### Rated ambient temperature range (°C)

#### Thermal data

Housing directly mounted to the process connection  
 permitted ambient temperature at the electronics enclosure  
 plastic enclosure without / with heating - 20 °C  $\leq T_{amb} \leq +30$  °C ... +60 °C  
 metal enclosure without heating - 20 °C  $\leq T_{amb} \leq +30$  °C ... +60 °C  
 metal enclosure with heating - 40 °C  $\leq T_{amb} \leq +30$  °C ... +60 °C

#### max. surface temperature and temperature class

max. T <sub>amb</sub>	max. T <sub>process</sub>	max. T <sub>surface</sub>	Temperaturclass
30 °C	50 °C	90 °C / 120 °C <sup>1)</sup>	T5 / T4 <sup>1)</sup>
40 °C	60 °C	100 °C / 120 °C <sup>1)</sup>	T4
50 °C	70 °C	110 °C / 120 °C <sup>1)</sup>	T4
60 °C	80 °C	120 °C	T4

<sup>1)</sup> data for universal voltage version which is equipped with a thermo fuse of 117 °C

#### permitted temperature

sensor, process connection metal -40 °C...+ 80 °C  
 plastic process connection -20 °C...+ 80 °C



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**Additional information:**

Housing mounted to the process connection with temperature adapter  
 permitted ambient temperature at the electronics enclosure  
 plastic enclosure without / with heating  $-20\text{ °C} \leq T_{amb} \leq +60\text{ °C}$   
 metal enclosure without heating  $-20\text{ °C} \leq T_{amb} \leq +60\text{ °C}$   
 metal enclosure with heating  $-40\text{ °C} \leq T_{amb} \leq +60\text{ °C}$

max. surface temperature and temperature class

max. T <sub>amb</sub>	max. T <sub>process</sub>	max. T <sub>surface</sub>	Temperaturclass
60 °C	90 °C	120 °C	T4
60 °C	100 °C	120 °C	T4
60 °C	110 °C	120 °C	T4
60 °C	120 °C	120 °C	T4
60 °C	130 °C	130 °C	T4
60 °C	140 °C	140 °C	T3
60 °C	150 °C	150 °C	T3
60 °C	160 °C	160 °C	T3
60 °C	170 °C	170 °C	T3
60 °C	180 °C	180 °C	T3
60 °C	190 °C	190 °C	T3
60 °C	200 °C	200 °C	T2
60 °C	210 °C	210 °C	T2
60 °C	220 °C	220 °C	T2
60 °C	230 °C	230 °C	T2
60 °C	240 °C	240 °C	T2
60 °C	250 °C	250 °C	T2

permitted temperature  
 sensor, process connection metal  $-40\text{ °C} \dots +250\text{ °C}$