



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

Certificate No.: IECEx SIR 15.0128X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: **2016-02-09** Page 1 of 4

Applicant: **UWT GmbH**
Westendstrasse 5
D-87488 Betzigau
Germany

Electrical Apparatus: **NivoRadar NR 3000 Level Monitoring Radar Equipment**
Optional accessory:

Type of Protection: **Type 'n' and Dust**

Marking: Ex nA II T4 Gc
Ex nL IIC T4 Gc
Ex ta IIIC T139°C Da IP68
Ta = -40°C to +80°C
Note - Due to restrictions applied by the applicant some products that are detailed in this certificate may not be commercially available.

Approved for issue on behalf of the IECEx Certification Body: R A Craig

Position: Certification Support Officer

Signature:
(for printed version)

Date: 2016-02-09

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.

Certificate issued by:
SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden
Deeside
CH5 3US
United Kingdom

sira
CERTIFICATION





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Manufacturer: **UMT GmbH**
Westendstrasse 5
D-87488 Betzigau
Germany

Additional 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:

IEC 60079-0 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-15 : 2005-03 Edition: 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'

*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:

GB/SIR/ExTR15.0318/00

Quality Assessment Report:

DE/BVS/QAR11.0007/03



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The NivoRadar NR 3000, available in either HART or Profibus/Foundation Fieldbus version, is a continuous level measurement instrument using radar technology. The HART version is connected to loop power (4–20 mA), which provides power and communication to and from the device while the Profibus/Foundation Fieldbus version is powered and communicated through the Profi/FF communication link itself.

The circuit is housed in a two part welded stainless steel enclosure. The upper enclosure, accessible via the threaded cover, houses the following PCBs:

- Main board (either HART or Profi/FF)
- FMCW Radar Technology board
- Display Interface main card
- Removable Display board

Except for the Display Interface main card and the Removable Display Module, all other PCBs are encapsulated within a plastic housing. Electrical connections are made via a conduit entry to a 2-way terminal block situated on top of this housing.

Refer to EQUIPMENT (continued) for additional description.

CONDITIONS OF CERTIFICATION: YES as shown below:

The user/installer shall comply with the following:

1. Parts of the enclosure may be non-conducting and may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions (such as high-pressure steam), which might cause a build-up of electrostatic charge on non-conducting surfaces.
2. The supply to the equipment shall be rated for a prospective short-circuit current of not more than 10 kA and shall be protected by a suitably-rated fuse.



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EQUIPMENT(continued):

The lower enclosure is the sensor housing containing all the radar sensing components (emitter, lens, moisture absorbent material) as well as aiming parts (horn, flange).

The equipment may be used as either non-sparking (nA) or energy limited (nL).

As non-sparking (nA) equipment the equipment is rated:

$U_n = 32 \text{ V}$

For energy limited (nL) the following parameters apply:

FNICO		Entity parameters	
U_i	= 17.5 V	U_i	= 32 V
I_i	= 570 mA	I_i	= 13.5 mA
P_i	= 7.98 W	C_i	\leq 5 nF
C_i	\leq 5 nF	L_i	\leq 20 μ H
L_i	\leq 20 μ H		