



1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 15ATEX4353X** Issue: **0**

4 Equipment: **NivoRadar NR 3000 Level Monitoring Radar Equipment**

5 Applicant: **UWT GmbH**

6 Address: **Westendstrasse 5
D-87488 Betzigau
Germany**

7 This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of Category 3 equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to:

EN 60079-0:2006

EN 60079-15:2005

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

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 schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

12 The marking of the equipment shall include the following:



II 3G

Ex nA II T4 Gc

Ex nL IIC T4 Gc

(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.

R A Craig
Certification Support Officer

Project Number 70051339

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Sira Certification Service

Unit 6, Hawarden Industrial Park,
Hawarden, CH5 3US, United Kingdom



SCHEDULE

TYPE EXAMINATION CERTIFICATE

Sira 15ATEX4353X
Issue 0

13 DESCRIPTION OF EQUIPMENT

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
- FMCW Radar HF module
- 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.

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	≤ 5 nF
C_i	≤ 5 nF	L_i	≤ 20 μH
L_i	≤ 20 μH		

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	09 February 2016	R70051339A	The release of the prime certificate.

14.3 Certificate number Sira 09ATEX4357X Issue 2

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15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 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.
- 15.2 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.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of Type Examination Certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

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Certificate Annexe



Certificate Number: Sira 15ATEX4353X
Equipment: NivoRadar NR 3000 Level Monitoring Radar
Equipment
Applicant: UWT GmbH

Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
A5E36852453	1 of 1	1	04 Feb 16	UWT NivoRadar NR 3000 HART Hazardous Nameplate Drawing

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