

UNITED KINGDOM CONFORMITY ASSESSMENT

1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended)

3 Certificate Number: **CSAE 22UKEX1318X** Issue: **0**

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

5 Manufacturer: **UWT GmbH**

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

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

8 CSA Group Testing UK Limited, 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 Schedule 1 of the Regulations. 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 has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-11:2012

EN IEC 60079-7:2015+A1:2018

Except in respect of those requirements listed at Section 16 of the schedule to this certificate.

The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:



II 3 G

Ex ic IIC T4 Gc

Ex ec IIC T4 Gc

Ta = -40°C to +80°C



Name: Michelle Halliwell
Title: Director of Operations

SCHEDULE

TYPE EXAMINATION CERTIFICATE

**CSAE 22UKEX1318X
Issue 0**

13 DESCRIPTION OF PRODUCT

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 Increased safety (Ex ec) or Intrinsically safe for Zone 2 (Ex ic)

As Increased safety (Ex ec) equipment the equipment is rated:

Un = 32 V

For Intrinsically safe in Zone 2 application (Ex ic) the following parameters apply:

Foundation Fieldbus	Profibus PA	HART
Entity parameters Ui = 32 V Ii = 13.5 mA Ci ≤ 5 nF Li ≤ 20 µH	Entity parameters Ui = 32 V Ii = 13.5 mA Ci ≤ 5 nF Li ≤ 20 µH	Ui = 32 V Ii = 22.63 mA Ci ≤ 5 nF Li ≤ 20 µH

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	02 December 2022	R80133407A	The release of the prime certificate.



SCHEDULE

TYPE EXAMINATION CERTIFICATE

CSAE 22UKEX1318X
Issue 0

- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 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.
- 15.3 Any glands, conduit entry devices or blanking elements fitted to the equipment shall suitably Certified and installed in compliance with IEC/EN 60079-14 for the explosive environment, method of protection, and environmental conditions applicable for end use.
- 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)**
- In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.
- 17 **PRODUCTION CONTROL**
- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders



**UK UK
CANI**



Certificate Annexe

Certificate Number: CSAE 22UKEX1318X
Product: NivoRadar NR 3000 Level Monitoring Radar Equipment
Manufacturer: UWT GmbH

Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
A5E36852453	1 of 1	3	06 Oct 22	UWT NivoRadar NR 3000 HART HAZARDOUS NAMEPLATE DRAWING



**UKUK
CANI**