



1 **EU TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 03ATEX5277X** Issue: **2**

4 Equipment: **Nivus P Series of Ultrasonic Transducers**

5 Applicant: **Nivus GmbH**

6 Address: **Im Tale 2
D-75031
Eppingen
Germany**

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

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 to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 plus Amendments 1 and 2 EN 50 028:1987

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This EU type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2GD
EEx m II T6 (Tamb = -40°C to +75°C)

Project Number 80066900

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310, Building B42,
6812AR, Netherlands



SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The Nivus P Series of Ultrasonic Level Sensors are designed as level measurement sensors used in level measurement systems. The sensors in the series differ only in the size of transducer crystal used and the frequency of operation. The equipment comprises a printed circuit board and a piezo electric crystal transducer; these are all housed inside a plastic enclosure and then totally encapsulated. An integral cable provides the connection facilities to the external circuits.

The sensors have been assessed with the following input parameters:

Rated input voltage = 24 V
Maximum input power = 1.5 W

The sensors have no internal fuse or any other components that will guarantee its suitability for connection to a prospective short circuit current of 4000A. Such components must be provided in the external equipment to which the sensors are to be connected.

Variation 1 - This variation introduced the following change:

- i. The inclusion of the Model P 40 into the range of Pulsar dB Series of Ultrasonic Level Sensors.

Variation 2 - This variation introduced the following changes:

- i. Modifications to the printed circuit board (PCB) to form a dB Mk2 circuit board.
- ii. To permit the use of the dB Mk2 circuit board in all previous models within the P series of Ultrasonic Level Sensors.
- iii. The inclusion of the Model P 6 Mk2, standard, and the P 6 Mk2, threaded nose versions into the range of Nivus P Series of Ultrasonic Level Sensors.

Variation 3 - This variation introduced the following change:

- i. The introduction of minor changes of the printed circuit board and parts list.

Variation 4 - This variation introduced the following change:

- i. To permit the enclosure used in the construction of the sensor to be made from an alternative, plastic material.

Variation 5 - This variation introduced the following changes:

- i. An alternative PCB design (db Burst Drive) to be used in the existing P transducer range.
- ii. A different method for the connection of the cable screen to earth.
- iii. A change of details regarding the encapsulation used for the piezo section of the design.

Variation 6 - This variation introduced the following changes:

- i. The recognition of the P-40 version of the equipment.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

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14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	19 August 2003	52V10349	The release of the prime certificate.
1	12 May 2009	R52A19911A	This Issue covers the following changes: <ul style="list-style-type: none">All previously issued certification was rationalised into a single certificate, Issue 1, Issue 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.The rationalisation of this certificate with the one identified at section 14.3.The introduction of Variation 6.
2	22 December 2020	R80066900A	This Issue covers the following changes: <ul style="list-style-type: none">EC-Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. <i>(In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i>Transfer of certificate Sira 03ATEX5277X from Sira Certification Service to CSA Group Netherlands B.V..

14.3 Certificate number Sira 02ATEX5104X Issue 9.

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The encapsulated Type 'm' sensors in the series must be supplied from apparatus that provides protection against prospective short circuit currents of up to 4000A.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

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

17 CONDITIONS OF MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 This product shall be uniquely marked with the labels identified in the Annexe of this certificate

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Certificate Annexe



Certificate Number: Sira 03ATEX5277X
Equipment: Nivus P Series of Ultrasonic Transducers
Applicant: Nivus GmbH

Issue 0

Drawing No.	Rev.	Sheet	Date	Title
D-804-0543-C	C	1 of 1	04 Aug 03	Nivus P3, 6, 10 & 15 Transducer labels
D-804-0544-C	C	1 of 1	04 Aug 03	Nivus P25 transducer label
D-804-0551-B	B	1 of 1	27 May 03	Nivus ATEX Label

Issue 1

Drawing	Rev.	Sheets	Date (Sira stamp)	Title
D-804-0696-A	A	1 of 1	15 Apr 09	Nivus Transducer Wraparound Labels for 40m Transducer

Issue 2 – No new drawings were introduced.

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