

[1] **EC-TYPE EXAMINATION CERTIFICATE**



[2] **Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

[3] EC-Type Examination Certificate Number: **DEMKO 05 ATEX 138956X**

[4] Equipment or Protective System: **RADIO TRANSCEIVER TRX 1012.**

[5] Manufacturer: **NIROS Communications A/S**

[6] Address: **Hirsemarken 5, DK 3520 Farum, Denmark**

[7] This equipment or protective system and any acceptable variation there to is specified in the schedule to this certificate and the documents therein referred to.

[8] UL International Demko A/S, notified body number 0539 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report no. 138956

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 E incl. A1+A2 EN 50020: 2002 E EN 50281-1-1: 1998 incl. A1

[10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

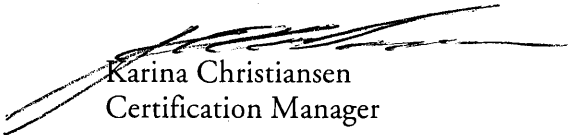
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by the certificate.

[12] The marking of the equipment or protective system shall include the following:

 **II 2 G EEx ib IIB T5-T6 and EEx ib IIC T5-T6
II 3 D T85°C**

On behalf of UL International Demko A/S

Herlev, 2005-06-15


Karina Christiansen
Certification Manager

UL International Demko A/S

Lyskaer 8, P.O. Box 514
DK-2730, Herlev, Denmark
Telephone: +45 44856565
Fax: +45 44856500

Certificate: 05 ATEX 138956X

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entirety and without any change, schedule included



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Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 05 ATEX 138956X
Report: 138956-04/08CA46344

[15] Description of Equipment or protective system
The NIROS 1012 is a portable communications radio. It covers the frequency ranges from 66 – 88 MHz, 146 – 174 MHz and 403 – 470 MHz. It is housed in a rugged metal housing. It features an alphanumeric backlit display, and a keyboard. The radio is powered by a rechargeable battery pack.

Type variants comprised by the certificate

TRX 1012
I II III IV

Where:	I	Designated Band:
	B	for VHF Band 68 – 88 MHz
	C	for VHF Band 146 – 174 MHz
	D	for UHF Band 403 – 470 MHz
II	Designated Frequency range:	
	L	for 403 – 445 MHz
	H	for 430 – 470 MHz
III	Designated Channel spacing:	
	blank	25 kHz channel spacing
	200	20 kHz channel spacing
	125	12,5 kHz channel spacing
IV	Designated Antenna RF Power:	
	2W	2 W Antenna RF Power (shall be marked EEx ib IIC T5-T6)
	3,5W	3,5 W Antenna RF Power (shall be marked EEx ib IIB T5-T6)

Accessories comprised by the certificate

Battery Charger Type	CH110B, CH113B, CH114B, CH115B, CH116B, CH310B, CH313B, CH314B, CH315B, CH320B and CH 324B.
Auto charger Type	CH105B.
Battery Pack Type	NIROS 5673
Leather bags Type	9392, 9395 and 9396
Monofone Type	9260, 9261, 9262, 9263, 9264 and 9265
Earphone Type	9270 and 9271
Antenna Type	9406 frequency range 400 MHz - 470 MHz
Antenna Type	9429 frequency range 400 MHz - 420 MHz
Antenna Type	9426 frequency range 420 MHz - 450 MHz
Antenna Type	9430 frequency range 450 MHz - 470 MHz
Antenna Type	9408 frequency range 146 MHz - 155 MHz
Antenna Type	9409 frequency range 155 MHz - 164 MHz
Antenna Type	9410 frequency range 164 MHz - 174 MHz
Antenna Type	9431 frequency range 146 MHz - 155 MHz
Antenna Type	9432 frequency range 155 MHz - 164 MHz
Antenna Type	9433 frequency range 164 MHz - 174 MHz
Antenna Type	9011 frequency range 68 MHz – 87,5 MHz
Antenna Type	9012 frequency range 74 MHz – 87,5 MHz
Antenna Type	9013 frequency range 74 MHz – 87,5 MHz
Antenna Type	9411 frequency range 67 MHz - 74 MHz
Antenna Type	9412 frequency range 74 MHz - 81 MHz
Antenna Type	9413 frequency range 81 MHz - 88 MHz

The accessories and radios comprised by this certificate may also be used together with equipment comprised by certificate DEMKO 04 ATEX 138278X and schedule dated 2004-10-21 and certificate DEMKO 03 ATEX 132883X dated 2003-08-07 and scheduled dated 2004-06-18.

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Temperature range

The relation between the assigned temperature class and ambient temperature is as follows:

Temperature class	Ambient temperature range
T6	-25 °C to +40 °C
T5	-25 °C to +55 °C

Electrical data

Intrinsically safe specifications:

Accessory Connector for connection of simple apparatus or certified electrical equipment:

Specification for Accessory connector:

Pin 1 to 10

U₀: 9.0 V

I₀: 1.4 A

P₀: 1.6 W

Co: 1.3 µF

Lo: 12 µH

The electrical specifications are valid under conditions of a single fault.

The accessory connector antenna pin shall not be activated under Ex conditions. Use only the normal antenna connection.

Installation instructions

Follow the manufacturer's instruction for safe use in the manual.

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Report No.

Project Report No.: 138956-04/08CA46344 (Hazardous Location Testing)

Documents:

Description:	Drawing No.:	Rev. Level:	Date:
TRX1012 ATEX Schedule Drawings, 5 pages	1-9720-03-03	03	2008-10-10

[17]

Special conditions for safe use:

- Do not change the battery in wet or humid environments.
- Always keep battery connectors dry and clean.
- Do NOT charge the battery in hazardous area.
For charge of battery use NIROS Battery Charger Type CH105B, CH110B, CH113B, CH114B, CH115B, CH116B, CH310B, CH313B, CH314B, CH315B, CH320B and CH 324B only.
- Use only Battery Pack Type NIROS 5673.
- In case of accidental breakage of the display window send the radio to service.
- Ambient temperature range for dust certification is -20 °C to +40 °C.

[18]

Essential Health and Safety Requirements

Concerning EHSR this Schedule verifies compliance with the ATEX directive only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

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Additional information

The Radio Transceiver Type TRX 1012 has in addition satisfied the criteria for Degree of Protection IP 54 in accordance with IEC 60529.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

Certification Manager

Jan-Erik Storgaard



Date of issue 2009-01-09

Certification Body

UL International Demko A/S, Lyskaer 8, P.O. Box 514, DK-2730
Herlev, Denmark, Tel. +45 44 85 65 65, info.dk@dk.ul.com
www.ul-europe.com