# EC-TYPE EXAMINATION CERTIFICATE

[1] [2]

> Equipment or Protective System intended for use in Potentially explosive atmospheres Directive 94/9/EC



[3] EC-Type Examination Certificate Number: DEMKO 04 ATEX 0327520

[4] Equipment or Protective System: Toxi Pro, Oxy Pro, Toxi LTD, and Oxy LTD Toxic Gas

Detectors .

[5] Manufacturer: Biosystems

[6] Address: 651 South Main Street

Middletown CT 06457

USA

[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: 0327520

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN50014:1997 + A1:1999 + A2:1999 EN50020:2002

- [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 this 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:

Ex II 2 G EEx ia IIC T4

On behalf of UL International Demko A/S

Herley, 2004-06-10

Karina Christiansen Certification Manager

**UL International Demko A/S** 

Lyskaer 8, P.O. Box 514 DK-2730 Herley, Denmark Telephone: +45 44856565 Fax: +45 44856500 Certificate 04 ATEX 0327520

This certificate may only be reproduced in its entirety and without any change, schedule included



[13]

[14]

## Schedule

# EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 04 ATEX 0327520

[15] Description of Equipment or protective system

Toxic Gas Detectors and Oxygen Depletion Monitors –portable battery operated monitors intended for the detection of toxic and oxygen depletion. The devices contain visual and audible alarm that are activated when conditions exceed preset limits.

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

Ambient temperature range

Temperature class

-20 °C to +50 °C

T4

#### Electrical data

The Toxi Pro and Oxy Pro are powered by one user replaceable Lithium 3.0V battery, Part No. CR2 manufactured by Panasonic, Part No. CR2 manufactured by Sanyo, Part No. CR2 manufactured by Duracell Ultra or PART No. EL1CR2 manufactured by Energizer.

The Toxi LTD, Toxi3LTD and Oxy LTD are powered by one non-replaceable Lithium 3.6V battery.

#### Installation instructions

A user manual is provided with each unit

#### Performance Testing

The measuring function of the Toxi Pro, Oxy Pro, Toxi LTD, Toxi3 LTD and Oxy LTD for explosion protection, according to Annex II clause 1.5.5, 1.5.6 and 1.5.7 of the directive 94/9/EC, is not covered in this certificate.

## Routine tests

No routine tests required.

#### [16] Report No.

0327520 (Hazardous Locations Testing) 0620382 (Hazardous Locations Testing)

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Ð	rawings:

Number	Date	Description
10-493, rev A0	2004-04-08	Housing Top Toxi Pro
10-494, rev. A0	2004-04-08	Housing Bottom Toxi Pro
10-495, rev. A1	2004-04-08	Housing Top Toxi LTD, Toxi3 LTD
10-496, rev. A1	2004-04-08	Housing Bottom Toxi LTD/Toxi3 LTD
CD-35-44, rev. A2		Toxi LTD/Toxi3 LTD/Oxy LTD Assembly
CD-35-45, rev. A0	2003-12-29	Toxi Pro/Oxy Pro Assembly
LBL-TOXIPRO-ATEX, rev. A0	2003-12-16	Label Toxi Pro
LBL-OXYPRO-ATEX, rev. A0	2003-12-16	Label Oxy Pro
LBL-TOXILTD-ATEX, rev. A0	2003-12-16	Label Toxi LTD
LBL-TOXI3LTD-ATEX, rev. A0	2003-12-16	Label Toxi3 LTD
LBL-OXYLTD-ATEX, rev. A0	2003-12-16	Label Oxy LTD

### **UL International Demko A/S**

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# Schedule

# EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 04 ATEX 0327520

62-903, rev. D1	2006-09-01	Toxi Pro/LTD/Toxi3 LTD Main Board Schematic
03-311, rev. H2	2003-09-22	Toxi Pro/LTD Main Board Trace Layout
03-311, rev. G0	2003-09-22	PCB Fabrication Drawing
35-0602, rev. G0	2003-09-24	Component Layout Toxi Pro (Toxic)
35-0603, rev. G0	2004-09-24	Component Layout Toxi Pro (Oxygen)
35-0604, rev. G1	2003-09-24	Component Layout for Toxi LTD and Toxi3
		LTD (Toxic)
35-0605, rev. G0	2004-09-24	Component Layout Toxi LTD (Oxygen)
BOM-35-0602, rev. G0	2004-11-23	Bill of Materials Toxi Pro (Toxic)
BOM-35-0603, rev. A1	2004-04-28	Bill of Materials Toxi Pro (Oxygen)
BOM-35-0604, rev. G1	2006-08-29	Bill of Materials Toxi LTD/Toxi3 LTD (Toxic)
BOM-35-0605, rev. A1	2004-04-28	Bill of Materials Txoi LTD (Oxygen)
CD-20-TPRO, rev. A0	2003-12-23	Sensor Control Drawing ToxiPro/LTD
47-029, rev. B1	2000-10-31	LCD Toxi Pro/LTD, Toxi3 LTD
31-344, rev. A0	2003-07-21	Overlay, Display Window
13-264, rev. 1.11	2004-03-22	Manual Toxi Pro and Oxy Pro
13-266, rev. 1.03	2004-03-22	Manual Toxi LTD and Oxy LTD
13-300, rev. 1.00	2006-06-30	Manual Toxi3 LTD

[17] Special conditions for safe use:

## [18] Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

### Additional information

None

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.

On behalf of UL International Demko A/S

Herley, 2006-10-26

Karina Christiansen Certification Manager

**UL International Demko A/S** 

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