

# EC-TYPE EXAMINATION CERTIFICATE




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

- [3] EC-Type Examination Certificate Number: DEMKO 05 ATEX 0424116X
- [4] Equipment or Protective System: **MultiPro Gas Monitor**
- [5] Manufacturer: **Biosystems**
- [6] Address: **651 South Main Street, Middletown, CT 06457**
- [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. 0424116
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:  
**EN 50014: 1997 E incl. A1+A2    EN 50018:2000+A1:2002    EN 50020: 2002 E**
- [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:

**Ex II 2 G    EEx ia d IIC T4**

On behalf of UL International Demko A/S

Herlev, 2005-04-08

  
Karina Christiansen  
Certification Manager

## UL International Demko A/S

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Certificate: 05 ATEX 0424116X

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## Schedule

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### EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 05 ATEX 0424116X

[15] Description of Equipment or protective system


The MultiPro Multi-Gas Monitor is a portable, battery-operated combustible and toxic gas and oxygen deficiency monitor. The device is powered by either an alkaline or lithium ion battery pack and is to be used only with the Model 54-49-103 charger and pump assembly Model 54-49-102. The device provides audible and visual signals when predetermined levels of gas have been reached.

#### Routine Tests

Routine tests in accordance with Clause 11.1.1 of EN50020 are to be carried out on each diode barrier assembly in the charger, Model 54-49-103.

#### Types comprised by the certificate:

The certificate comprises the following type:

MultiPro  II 2 G EEx ia d IIC T4

#### Temperature range

The ambient temperature range is -20 °C to +40 °C.

#### Electrical data

Supply: The MultiPro uses three size "AA" alkaline batteries or one 3.7V lithium ion battery.

The MultiPro may use the oxygen and toxic sensors meeting the specifications listed in sensor control drawing number CD-20-MPRO, Rev. A0 which have been evaluated to EN50020. The certificate number of the combustible sensor used in the device is SIRA 01ATEX1205X and is constructed in accordance with drawing no. CD-20-MPRO, Rev. A0.

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#### Report No.

Project Report No.: 0424116 (Hazardous Location Testing)

#### UL International Demko A/S

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# Schedule

## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 05 ATEX 0424116X

Drawings:  
Number

Date/Rev

Description

LBL-MPRO	2004-06-03/A1	MultiPro Instrument Label
LBL-54-49-103	2005-02-24/A0	Charger Label
LBL-54-49-102	2005-01-09/A0	Remote Sampling Pump Label
13-278	2005-02-23/1.20	MultiPro Instruction Manual
CD-54-48	2004-07-07/A0	MultiPro Overall Assembly
10-500	2004-05-07/B0	MultiPro Housing, Bottom
10-497	2004-05-07/B0	MultiPro Housing, Top
62-922	2004-12-01/I0	MultiPro – Main Board Schematic
35-0607	2004-05-25/E1	MultiPro – Main Board Component Layout
03-322	E	MultiPro – Main Board Trace Layout
03-322	2004-04-29/E0	MultiPro – Main Board Assembly
BOM-35-0607	2004-12-20/B0	MultiPro – Main Board Parts List
22-187	2004-06-01/D0	MultiPro – Main Board Insulator
62-921	2004-06-28/C0	MultiPro – Sensor Board Schematic
35-0608	2004-06-10/D0	MultiPro – Sensor Board Component Layout
03-324	C	MultiPro – Sensor Board Trace Layout
03-324	2004-09-10/C0	MultiPro – Sensor Board Assembly
BOM-35-0608	2004-06-08/A0	MultiPro – Sensor Board Parts List
CD-20-MPRO	A0	Approved Sensor Control Drawing
62-926	2004-06-28/A0	MultiPro – Alarm Board Schematic
35-0622	2004-06-10/B0	MultiPro – Alarm Board Component/Trace Layout
03-327	2004-05-12/B1	MultiPro – Alarm Board Assembly
BOM-35-0622	2004-06-08/A0	MultiPro – Alarm Board Parts List
62-923	2004-11-16/C0	MultiPro – Battery Board Schematic
03-323	2004-12-09/C0	MultiPro – Battery Board Assembly
03-323	C	MultiPro – Battery Board Trace Layout
35-0609	2004-12-09/C0	MultiPro – Alkaline Battery Component Layout
BOM-35-0609	2004-12-08/C0	MultiPro – Alkaline Battery Parts List
35-0613	2004-12-09/C0	MultiPro – Li-ion Battery Component Layout
BOM-35-0613	2004-12-08/C0	MultiPro – Li-ion Battery Parts List
22-188	2004-08-07/1	MultiPro – Battery Board Insulator
RM020705	2005-02-07/1	Contact cover
62-924	2004-10-19/C0	MultiPro – Pump Board Schematic
35-0611	2004-06-10/B2	MultiPro – Pump Board Component Layout

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## EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 05 ATEX 0424116X

03-326	B	MultiPro – Pump Board Trace Layout
03-326	2004-05-19/B2	MultiPro – Pump Board Assembly
BOM-35-0611	2004-11-22/B2	MultiPro – Pump Board Parts List
62-927	2004-09-23/C0	MultiPro – Charger Board Schematic
03-325	C	MultiPro – Charger Board Component/Trace Layout
03-325	C0	MultiPro – Charger Board Assembly
BOM-35-0610	2004-11-01/C0	MultiPro – Charger Board Parts List

[17] Special conditions for safe use:

The batteries must only be changed in a non-hazardous area. The device is marked: "Replace batteries only in area known to be non-hazardous".

The Model MultiPro Gas Monitor must only be used with alkaline battery pack Part No. 35-0609 or lithium-ion battery pack Part No. 35-0613. The only accessories to be used with the device are the charger, Model 54-49-103 and pump assembly Model 54-49-102.


[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.

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

Herlev, 2005-04-08

  
Karina Christiansen  
Certification Manager

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