

[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 11 ATEX 1031772X Rev. 2**

[4]

Equipment or Protective System: **Gas-Pro Portable Gas Detector**

[5]

Manufacturer: **Crowcon Detection Instruments Ltd.**

[6]

Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, OX14 1DY, U. K.**

[7]

This equipment or protective system and any acceptable variation thereto are 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. **13CA50271**

[9]

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

**EN 60079-0:2006
EN 60079-0:2009**

**EN 60079-1:2007
EN 60079-11:2007**

[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 Ex dia IIC T4 Gb Tamb: -20 °C to +55 °C

Certification Manager

Jan-Erik Storgaard

Notified Body

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2011-06-01

Re-issued: 2013-12-02

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



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[14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1031772X Rev. 2
Report: 13CA50271

[15]

Description of Equipment or protective system

Gas-Pro is a portable, hand-held, re-chargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data-logger. The circuitry is housed within a polymeric enclosure manufactured from clear polycarbonate over-moulded with static-dissipative TPE in orange, red, or black with openings in the TPE providing display windows. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump is available to facilitate gas sampling.

The Main PCB types determine the type sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
	Combustible (IR)
	Oxygen
1004-1047 (S013001)	Toxic (Universal)
	Pellistor or PID (5V max)
	Toxic (Single)
	Oxygen
1004-1047-01 (S013021)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
1004-1042 (S013002)	Toxic (Universal)
	Pellistor or PID (5V max)
	Combustible (IR)
	Oxygen
1004-1042-01 (S013022)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Combustible (IR)
	Oxygen
ECAD-000106 (S013004)	Toxic (Universal)
	Pellistor or PID (5V max)
	Pellistor or PID (5V max)
	Oxygen
ECAD-000106-01 (S013024)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Pellistor or PID (4.25V max)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.

The optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is covered in this certificate.

The ambient temperature ranges are:

Safe Area: 0 °C to +40 °C. (Charging and communication)
Hazardous Area: -20 °C to +55 °C.

Electrical data

Intrinsically safe specifications:

U_m: 9.1 V



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Schedule
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Performance testing

The measuring function of the Gas-Pro 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.

Installation instructions

None

Mounting instructions

None

Routine tests

None

[16]

Report No.

Project Report No.: 13CA50271 (Hazardous Location Testing)

Documents:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
1004-1076	1	GasPro ATEX Certification Label	01	2010-07-07
ENG-000028	11	GasPro Manual Control Document	3	2013-10-03
ENG-00024	11	Gas Pro Sensors – Certification Control Document	2	2013-09-20
1004-1005	2	Front Case Moulding	02	2011-03-03
1004-1006	2	Rear Case Moulding	02	2011-03-03
1004-1008	1	Pumped Flow Plate Assembly	01	2010-04-08
1004-1009	1	Pumped Flow Plate	01	2010-04-08
1004-1014	1	GasPro-Battery Tray	01	2010-06-15
1004-1093	1	B1 Potting Box	01	2011-02-09
1004-1016	1	B2 Potting Box	01	2010-10-22
1004-1077	1	B3 Potting Box	01	2010-06-15
1004-1022	1	Non Pumped Flow Plate Assembly	01	2010-04-08
1004-1023	1	Non Pumped Flow Plate	01	2010-06-15
1004-6010	1	Flow Plate Assembly Two	01	2010-04-08
1004-6011	1	Flow Plate Two	01	2010-04-08
1004-1049	1	GasPro Certification GA	02	2011-03-03
1004-1075	1	Gas Pro Battery Assembly	01	2010-08-26
1004-1086	1	GasPro Display Board PCB Assembly	01	2010-08-04
1004-1090	1	GasPro Display to Main Board Connection	01	2010-11-10
1004-1095	1	B1 Main Board Potting Details	01	2011-02-21
1004-1094	1	B2 Main Board Potting Detail	01	2011-02-21
1004-1091	1	B3 and B4 Main Board Potting Detail	02	2013-09-18
1004-6000	1	Battery Connection	01	2011-02-22
1004-6003	1	Pump Cable Restraint	01	2011-02-22
1004-1266	1	B1 Sensor Insulator	01	2011-02-23
1004-1101	1	B2 Sensor Insulator	01	2011-02-23
1004-1099	1	B3 Sensor Insulator	01	2011-01-20
1004-6005	1	KNF PUMP - PJ25004 - NMS020	01	2011-02-23
1004-7001	1	Vibrator	01	2011-02-22
1004-7002	1	Connecting Cable – Main Board to Display Board	01	2011-02-22
1004-7003	1	Piezo Transducer	01	2011-02-23
3072	1	Grip Clip	10	2011-02-21
1004-1027-CD-CERT	13	GasPro Display (Circuit Diagram)	8	2011-03-16
1004-1027-PL-CERT	1	GasPro Display (Parts List)	8	2011-05-31
1004-1027-PCB-CERT	10	GasPro Display (PCB Layout)	8	2011-03-16
1004-1080-CD-CERT	5	GasPro B1 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1080-PL-CERT	1	GasPro B1 Main PCB (Parts List)	1	2011-05-31
1004-1080-PCB-CERT	10	GasPro B1 Main PCB (PCB Layout)	1	2011-03-10
1004-1047-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1047-01-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1047-PL-CERT	1	GasPro B2 Main PCB (Parts List)	2	2011-05-31
1004-1047-01-PL-CERT	1	GasPro B2 Main PCB (Parts List)	1	2011-03-31
1004-1047-PCB-CERT	10	GasPro B2 Main PCB (PCB Layout)	1	2011-03-10
1004-1042-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	6	2011-04-18
1004-1042-01-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	1	2011-04-18
1004-1042-PL-CERT	1	GasPro B3 Main PCB (Parts List)	7	2011-05-04
1004-1042-01-PL-CERT	1	GasPro B3 Main PCB (Parts List)	1	2011-04-18
1004-1042-PCB-CERT	10	GasPro B3 Main PCB (PCB Layout)	6	2011-03-01

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MCAD-000743	1	Gas Pro Dust Filter Flow Plate Assembly	01	05/09/2013
MCAD-002434	1	Gas Pro B4 Sensor Insulator	01	19/09/2013
ECAD-000106-CD-CERT	5	Gas Pro B4 Main PCB Version 4 – Circuit Diagram	1	26/09/2013
ECAD-000106-PL-CERT	1	Gas Pro B4 Main PCB Version 4 – Certified Parts List	1	26/09/2013
ECAD-000106-01-CD-CERT	5	Gas Pro B4 Main PCB Version 4b – Circuit Diagram	1	26/09/2013
ECAD-000106-01-PL-CERT	1	Gas Pro B4 Main PCB Version 4b – Certified Parts List	1	26/09/2013
ECAD-000106-PCB-CERT	10	Gas Pro B4 Main PCB	2	18/11/2013

Note: previously listed drawings MCAD-000401, MCAD-000475, MCAD-000480 have been replaced by existing drawings 1004-1049, 1004-1006 and 1004-1005 respectively.

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Specific conditions of use:

The equipment is X-marked and shall be marked with the followings warnings:

- WARNING – DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS LOCATION.
- WARNING – READ AND UNDERSTAND THE MANUAL BEFORE USE.

The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.

[18]

Essential Health and Safety Requirements

Concerning ESRs this Schedule verifies compliance with the Annex III of ATEX directive only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II of this Directive.

Additional information

The Gas-Pro has been assessed as meeting the requirements for Ingress Protection to IP 20 in accordance with EN60529: 1991/A1 2001.

The certified Gas Sensors used in the Gas-Pro have been assessed based on their rated parameters. These devices are separately certified equipment or components that are controlled outside the scope of this certification. The manufacturer shall monitor the certification of these equipments/components to ensure that the use of these devices remains within certification of this equipment and shall notify the certification authority of any changes to these devices that may affect this certification.

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.



[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 11 ATEX 1031772X Rev. 1**

[4]

Equipment or Protective System: **Gas-Pro Portable Gas Detector**

[5]

Manufacturer: **Crowcon Detection Instruments Ltd.**

[6]

Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, OX14 1DY, U. K.**

[7]

This equipment or protective system and any acceptable variation thereto are 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. **11CA29407**

[9]

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

**EN 60079-0:2006
EN 60079-0:2009**

**EN 60079-1:2007
EN 60079-11:2007**

[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.

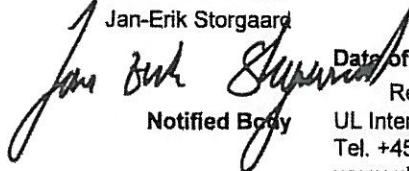
[12]

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

 **II 2 G Ex d ia IIC Gb T4 Tamb: -20 °C to +55 °C**

Certification Manager

Jan-Erik Storgaard



Notified Body

Date of issue: 2011-06-01

Revised: 2012-02-19

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark,
Tel. +45 44 85 65 65, info.dk@ul.com

www.ul-europe.com



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Underwriters
Laboratories

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Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1031772X Rev. 1
Report: 11CA29407

[15] Description of Equipment or protective system

Gas-Pro is a portable, hand-held, re-chargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data-logger. The circuitry is housed within a polymeric enclosure with orange or red over-moulding and display windows. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump is available to facilitate gas sampling.

The Main PCB types determine the type sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
	Combustible (IR)
	Oxygen
1004-1047 (S1013001)	Toxic (Universal)
	Pellistor or PID (5V max)
	Toxic (Single)
	Oxygen
1004-1047-01 (S013021)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
1004-1042 (S1013002)	Toxic (Universal)
	Pellistor or PID (5V max)
	Combustible (IR)
	Oxygen
1004-1042-01 (S013022)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Combustible (IR)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.

The ambient temperature ranges are:

Safe Area: 0 °C to +40 °C. (Charging and communication)
Hazardous Area: -20 °C to +55 °C.

Electrical data

Intrinsically safe specifications:

U_m: 9.1 V

Installation instructions

None

Mounting instructions

None

Routine tests

None

[16] Report No.
Project Report No.: 11CA29407 (Hazardous Location Testing)



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Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1031772X Rev. 1
Report: 11CA29407

Documents:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
1004-1076	1	GasPro ATEX Certification Label	01	2010-07-07
ENG-000028	10	GasPro Manual Control Document	1	2011-05-03
ENG-00024	11	Gas Pro Sensor Specification	1	2011-05-03
1004-1005	2	Front Case Moulding	01	2010-03-26
1004-1006	2	Rear Case Moulding	01	2010-03-26
1004-1008	1	Pumped Flow Plate Assembly	01	2010-04-08
1004-1009	1	Pumped Flow Plate	01	2010-04-08
1004-1014	1	GasPro-Battery Tray	01	2010-06-15
1004-1093	1	B1 Potting Box	01	2011-02-09
1004-1016	1	B2 Potting Box	01	2010-10-22
1004-1077	1	B3 Potting Box	01	2010-06-15
1004-1022	1	Non Pumped Flow Plate Assembly	01	2010-04-08
1004-1023	1	Non Pumped Flow Plate	01	2010-06-15
1004-6010	1	Flow Plate Assembly Two	01	2010-04-08
1004-6011	1	Flow Plate Two	01	2010-04-08
1004-1049	1	GasPro Certification GA	01	2010-03-30
1004-1075	1	Gas Pro Battery Assembly	01	2010-08-26
1004-1086	1	GasPro Display Board PCB Assembly	01	2010-08-04
1004-1090	1	GasPro Display to Main Board Connection	01	2010-11-10
1004-1095	1	B1 Main Board Potting Details	01	2011-02-21
1004-1094	1	B2 Main Board Potting Detail	01	2011-02-21
1004-1091	1	B3 Main Board Potting Detail	01	2010-11-11
1004-6000	1	Battery Connection	01	2011-02-22
1004-6003	1	Pump Cable Restraint	01	2011-02-22
1004-1266	1	B1 Sensor Insulator	01	2011-02-23
1004-1101	1	B2 Sensor Insulator	01	2011-02-23
1004-1099	1	B3 Sensor Insulator	01	2011-01-20
1004-6005	1	KNF PUMP - PJ25004 - NMS020	01	2011-02-23
1004-7001	1	Vibrator	01	2011-02-22
1004-7002	1	Connecting Cable – Main Board to Display Board	01	2011-02-22
1004-7003	1	Piezo Transducer	01	2011-02-23
3072	1	Grip Clip	10	2011-02-21
1004-1027-CD-CERT	13	GasPro Display (Circuit Diagram)	8	2011-03-16
1004-1027-PL-CERT	1	GasPro Display (Parts List)	8	2011-05-31
1004-1027-PCB-CERT	10	GasPro Display (PCB Layout)	8	2011-03-16
1004-1080-CD-CERT	5	GasPro B1 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1080-PL-CERT	1	GasPro B1 Main PCB (Parts List)	1	2011-05-31
1004-1080-PCB-CERT	10	GasPro B1 Main PCB (PCB Layout)	1	2011-03-10
1004-1047-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1047-01-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-31
1004-1047-PL-CERT	1	GasPro B2 Main PCB (Parts List)	2	2011-05-04
1004-1047-01-PL-CERT	1	GasPro B2 Main PCB (Parts List)	1	2011-03-31
1004-1047-PCB-CERT	10	GasPro B2 Main PCB (PCB Layout)	1	2011-03-10
1004-1042-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	6	2011-04-18
1004-1042-01-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	1	2011-04-18
1004-1042-PL-CERT	1	GasPro B3 Main PCB (Parts List)	7	2011-05-04
1004-1042-01-PL-CERT	1	GasPro B3 Main PCB (Parts List)	1	2011-04-18
1004-1042-PCB-CERT	10	GasPro B3 Main PCB (PCB Layout)	6	2011-03-01
MCAD-000401	1	Certification GA	01	30-03-2010
MCAD-000475	2	Linde Rear Case Moulding	01	26-03-2010
MCAD-000480	2	Linde Front Case Moulding	01	26-03-2010



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Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1031772X Rev. 1
Report: 11CA29407

[17]

Special conditions for safe use:

The equipment is X-marked and shall be marked with the followings warnings:

- WARNING – DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS LOCATION.
- WARNING – READ AND UNDERSTAND THE MANUAL BEFORE USE.

The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.

[18]

Essential Health and Safety Requirements

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

Additional information

The Gas-Pro has been assessed as meeting the requirements for Ingress Protection to IP 20 in accordance with EN60529: 1991/A1 2001.

The certified Gas Sensors used in the Gas-Pro have been assessed based on their rated parameters. These devices are separately certified equipment or components that are controlled outside the scope of this certification. The manufacturer shall monitor the certification of these equipments/components to ensure that the use of these devices remains within certification of this equipment and shall notify the certification authority of any changes to these devices that may affect this certification.

The Gas-Pro has not been assessed for Performance as a Gas Detector.

The Gas-Pro has not been assessed for use as either a Safety Device or Safety Related device.

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.



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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 11 ATEX 1031772X Rev. 0**

[4]

Equipment or Protective System: **Gas-Pro Portable Gas Detector**

[5]

Manufacturer: **Crowcon Detection Instruments Ltd.**

[6]

Address: **2 Blacklands Way, Abingdon Business Park, Abingdon, OX14 1DY, U. K.**

[7]

This equipment or protective system and any acceptable variation thereto are 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. **10CA31772**

[9]

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

**EN 60079-0:2006
EN 60079-0:2009**

**EN 60079-1:2007
EN 60079-11:2007**

[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]

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These are not covered by the certificate.

[12]

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

 **II 2 G Ex d ia IIC Gb T4 Tamb: -20 °C to +55 °C**

Certification Manager

Jan-Erik Storgaard

Date of issue: 2011-06-01

Notified 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



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Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 11 ATEX 1031772X Rev. 0
Report: 10CA31772

[15] Description of Equipment or protective system

Gas-Pro is a portable, hand-held, re-chargeable battery operated Gas Detector used for the detection of Combustible and Toxic gases, and oxygen depletion. The unit functions as an alarm and data-logger. The circuitry is housed within a polymeric enclosure with orange over-moulding and display windows. Battery charging and data transfer to the equipment is by the use of an optional charging and communications cables, for use in a safe area only. An optional pump is available to facilitate gas sampling.

The Main PCB types determine the type sensors fitted as follows:

Main PCB Assy No. (Crowcon Part Number)	Sensors Configuration
1004-1080 (S013005)	Toxic (Universal)
	Toxic (Single)
	Combustible (IR)
	Oxygen
1004-1047 (S1013001)	Toxic (Universal)
	Pellistor or PID (5V max)
	Toxic (Single)
	Oxygen
1004-1047-01 (S013021)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Toxic (Single)
	Oxygen
1004-1042 (S1013002)	Toxic (Universal)
	Pellistor or PID (5V max)
	Combustible (IR)
	Oxygen
1004-1042-01 (S013022)	Toxic (Universal)
	Pellistor or PID (4.25V max)
	Combustible (IR)
	Oxygen

The Display PCB consists of LCD Module, Display Processor, LED backlight, interface circuits to Main PCB and LED lights for displaying status of the unit. The Battery is a re-chargeable Li-Ion battery wired to the Main PCB. A flow plate used to facilitate the flow of gases over the sensor heads is screwed to the front of the GasPro enclosure.

The ambient temperature ranges are:

Safe Area: 0 °C to +40 °C. (Charging and communication)
 Hazardous Area: -20 °C to +55 °C.

Electrical data

Intrinsically safe specifications:

U_m: 9.1 V

Installation instructions

None

Mounting instructions

None

Routine tests

None

[16]

Report No.
 Project Report No.: 10CA31772 (Hazardous Location Testing)



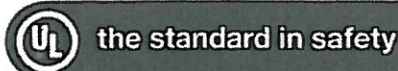
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Schedule
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Documents:

Document No.	Sheets	Document Title	Issue	Date (yyyy/mm/dd)
1004-1076	1	GasPro ATEX Certification Label	01	2010-07-07
ENG-000028	10	GasPro Manual Control Document	1	2011-05-03
ENG-00024	11	Gas Pro Sensor Specification	1	2011-05-03
1004-1005	2	Front Case Moulding	01	2010-03-26
1004-1006	2	Rear Case Moulding	01	2010-03-26
1004-1008	1	Pumped Flow Plate Assembly	01	2010-04-08
1004-1009	1	Pumped Flow Plate	01	2010-04-08
1004-1014	1	GasPro-Battery Tray	01	2010-06-15
1004-1093	1	B1 Potting Box	01	2011-02-09
1004-1016	1	B2 Potting Box	01	2010-10-22
1004-1077	1	B3 Potting Box	01	2010-06-15
1004-1022	1	Non Pumped Flow Plate Assembly	01	2010-04-08
1004-1023	1	Non Pumped Flow Plate	01	2010-06-15
1004-6010	1	Flow Plate Assembly Two	01	2010-04-08
1004-6011	1	Flow Plate Two	01	2010-04-08
1004-1049	1	GasPro Certification GA	01	2010-03-30
1004-1075	1	Gas Pro Battery Assembly	01	2010-08-26
1004-1086	1	GasPro Display Board PCB Assembly	01	2010-08-04
1004-1090	1	GasPro Display to Main Board Connection	01	2010-11-10
1004-1095	1	B1 Main Board Potting Details	01	2011-02-21
1004-1094	1	B2 Main Board Potting Detail	01	2011-02-21
1004-1091	1	B3 Main Board Potting Detail	01	2010-11-11
1004-6000	1	Battery Connection	01	2011-02-22
1004-6003	1	Pump Cable Restraint	01	2011-02-22
1004-1266	1	B1 Sensor Insulator	01	2011-02-23
1004-1101	1	B2 Sensor Insulator	01	2011-02-23
1004-1099	1	B3 Sensor Insulator	01	2011-01-20
1004-6005	1	KNF PUMP - PJ25004 - NMS020	01	2011-02-23
1004-7001	1	Vibrator	01	2011-02-22
1004-7002	1	Connecting Cable - Main Board to Display Board	01	2011-02-22
1004-7003	1	Piezo Transducer	01	2011-02-23
3072	1	Grip Clip	10	2011-02-21
1004-1027-CD-CERT	13	GasPro Display (Circuit Diagram)	8	2011-03-16
1004-1027-PL-CERT	1	GasPro Display (Parts List)	8	2011-05-31
1004-1027-PCB-CERT	10	GasPro Display (PCB Layout)	8	2011-03-16
1004-1080-CD-CERT	5	GasPro B1 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1080-PL-CERT	1	GasPro B1 Main PCB (Parts List)	1	2011-05-31
1004-1080-PCB-CERT	10	GasPro B1 Main PCB (PCB Layout)	1	2011-03-10
1004-1047-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-10
1004-1047-01-CD-CERT	5	GasPro B2 Main PCB (Circuit Diagram)	1	2011-03-31
1004-1047-PL-CERT	1	GasPro B2 Main PCB (Parts List)	2	2011-05-04
1004-1047-01-PL-CERT	1	GasPro B2 Main PCB (Parts List)	1	2011-03-31
1004-1047-PCB-CERT	10	GasPro B2 Main PCB (PCB Layout)	1	2011-03-10
1004-1042-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	6	2011-04-18
1004-1042-01-CD-CERT	5	GasPro B3 Main PCB (Circuit Diagram)	1	2011-04-18
1004-1042-PL-CERT	1	GasPro B3 Main PCB (Parts List)	7	2011-05-04
1004-1042-01-PL-CERT	1	GasPro B3 Main PCB (Parts List)	1	2011-04-18
1004-1042-PCB-CERT	10	GasPro B3 Main PCB (PCB Layout)	6	2011-03-01



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Special conditions for safe use:

The equipment is X-marked and shall be marked with the followings warnings:

- WARNING – DO NOT CHARGE THE BATTERY OR CONNECT TO THE EQUIPMENT IN A HAZARDOUS LOCATION.
- WARNING – READ AND UNDERSTAND THE MANUAL BEFORE USE.

The Gas-Pro shall only be connected to the charging circuit or communications interface circuit, using only suitably rated cables as defined in the Electrical Data, in a safe area, within a maximum ambient temperature of 0 °C to +40 °C.

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Essential Health and Safety Requirements

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

Additional information

The Gas-Pro has been assessed as meeting the requirements for Ingress Protection to IP 20 in accordance with EN60529: 1991/A1 2001.

The certified Gas Sensors used in the Gas-Pro have been assessed based on their rated parameters. These devices are separately certified equipment or components that are controlled outside the scope of this certification. The manufacturer shall monitor the certification of these equipments/components to ensure that the use of these devices remains within certification of this equipment and shall notify the certification authority of any changes to these devices that may affect this certification.

The Gas-Pro has not been assessed for Performance as a Gas Detector.

The Gas-Pro has not been assessed for use as either a Safety Device or Safety Related device.

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.