[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 15 ATEX 1411 Rev. 0**

[4] Equipment or Protective System: **Type T4 Portable Gas Detector**

[5] Manufacturer: **Crowcon Detection Instruments Ltd**

[6] Address: **172 Brook Drive, Milton Park, Abingdon, Oxfordshire, OX14 4SD**

[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. **4786386470**

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

EN 60079-0:2012+A11:2013 EN 60079-1:2007 EN 60079-11:2012

[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 1 G	**Ex ia IIC T4 Ga**	**(T4 Type 1)**
II 2 G	**Ex d ia IIC T4 Gb**	**(T4 Type 2)**

Certification Manager
Jan-Erik Storgaard

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: 2015-05-05

Notified Body

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[13] [14]

Schedule
EC-TYPE EXAMINATION CERTIFICATE No.
DEMKO 15 ATEX 1411 Rev. 0
Report: 4786386470

[15] Description of Equipment or protective system

The equipment is a portable gas detector designed to measure concentration of gases and to indicate excessive levels to the user by means of audible/visual/vibrating alarms.

The enclosure consists of a 2 piece casing secured by 6 self-tapping screws. The case material is a clear polycarbonate over-moulded with static dissipative TPE (orange, black or red). Openings are provided in the top part of the case to allow gas access to the sensors within the equipment.

There are 2 PCBs within the enclosure – the Main PCB (containing the majority of the electronics) and the Sensor PCB. These PCBs connect by means of PCB mounted plug/socket which are mechanically secured together.

Power is provided by a single, rechargeable Li-ion battery (types Sanyo UF103450P or E-One Moli Energy ICP103450CA) which is permanently fitted inside the equipment enclosure and connected to the Main PCB, which is not user-replaceable.

The equipment is designed to be used with a defined selection of toxic/O2 electrochemical gas sensors and flammable/pellistor gas sensors. The flammable/pellistor gas sensors intended for use in 'T4' are either 'Ex d' or 'Ex ia' certified components, Therefore there are 2 variants of 'T4' with either 'Ex d ia' or 'Ex ia' protection concepts.

External connections are provided for use in the non-hazardous area for battery charging and communications to computers.

The equipment is supplied with an optional filter plate accessory, which is an entirely non-metallic fitting that clips over the sensor openings.

Nomenclature for type :

T4 Type 1	Intrinsically Safe
T4 Type 2	Intrinsically safe with flameproof sensor

Temperature range
The ambient temperature ranges are:

Hazardous area:	-20 °C to +55 °C
Safe area:	0 °C to +40 °C (battery charging/communications)

Electrical data

Intrinsically safe specifications:
U_m : 9.1 V

Installation instructions
None

Performance testing
The measuring function of the 'T4' apparatus 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.

Mounting instructions
None

Routine tests
None

[16] Descriptive Documents
The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EC-Type Examination Certificate.

[17] Specific conditions of use:
None.

[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 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.