[1] # EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**

[3] EU-Type Examination Certificate Number: **DEMKO 15 ATEX 1411 Rev. 9**

[4] Product: **Type T4 Portable Gas Detector**

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

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

[7] This product 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 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products 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. **DK/ULD/ExTR15.0003/09.**

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

**EN IEC 60079-0:2018** **EN 60079-1:2014** **EN 60079-11:2012**

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

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

| | | |
|---|---|---|
| **II 1 G** | **Ex ia IIC T4 Ga** | **(T4 Type 1)** |
| **II 2 G** | **Ex db ia IIC T4 Gb** | **(T4 Type 2)** |

**Certification Manager**
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product 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 product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product 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
**Re-issued:** 2022-05-16

**Notified Body** UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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[13] [14]

# Schedule
# EU-TYPE EXAMINATION CERTIFICATE No.
## DEMKO 15 ATEX 1411 Rev. 9

[15] Description of Product

'T4' 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 db' or 'Ex ia' certified components. Therefore, there are 2 variants of 'T4' with either 'Ex db 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 |

Performance testing

The measuring function of the product for explosion protection, according to Annex II clause 1.5.5, 1.5.6 and 1.5.7 of the Directive 2014/34/EU is not covered in this certificate.

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1) to the scope of EN 60079-28:2015 .

Temperature range

The ambient temperature ranges are:

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

Electrical data

3.8 V (nominal battery)

Intrinsically safe specifications:

$U_m$ : 9.1 V

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 EU-Type Examination Certificate.

[17] Specific conditions of use:

None

[18] Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The trademark CROWCON will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.