



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX SGS 23.0078X** Page 1 of 3 [Certificate history:](#)  
Status: **Current** Issue No: 0  
Date of Issue: 2024-01-11  
Applicant: **Crowcon Detection Instruments (Beijing) Ltd.**  
Floor 3, Building 7, No.156, 4th Jinghai Rd, BDA  
Beijing City 101111  
China  
Equipment: **L-TEK P100 Laser methane gas detector**  
Optional accessory:  
Type of Protection: **Intrinsic Safety – “Ex i”; Optical Isolation – “Ex op is”**  
Marking: **Ex ib op is IIB T4 Gb (-20°C ≤ Ta ≤ +50°C)**

Approved for issue on behalf of the IECEx  
Certification Body:

**R S Sinclair**

Position:

**Technical Manager**

Signature:  
(for printed version)

Date:  
(for printed version)

11/1/2024

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**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire SK17 9RZ**  
**United Kingdom**





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Manufacturer: **Crowcon Detection Instruments (Beijing) Ltd.**  
Floor 3, Building 7, No.156, 4th Jinghai Rd, BDA  
Beijing City 101111  
**China**

Manufacturing locations: **Crowcon Detection Instruments (Beijing) Ltd.**  
Floor 3, Building 7, No.156, 4th Jinghai Rd, BDA  
Beijing City 101111  
**China**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

#### STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

[IEC 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation  
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[GB/SGS/ExTR23.0123/00](#)

Quality Assessment Report:

[DE/TUR/QAR16.0016/06](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The mini open-path laser methane gas detector L-TEK P100 uses TDLAS (Laser Spectroscopy) technology to quantitatively measure the concentration of methane in the target area by absorbing the specific wavelength.

The dimensions of the L-TEK P100 is about 138mm×49mm×34.5mm, it consists of a enclosure, one rechargeable battery packs ZP-1S3P-001 for supply power, 1 screen display, 1 buzzer for sound alarm, six multi-function button, Laser module, and PCBAs. The enclosure is composed of the front and back metal AL6061 housing covers, the upper glass cover, a transparent acrylic display window cover, six silica gel buttons. Charger connector is provided to charge the battery packs in a non-hazardous area, refer to "Specific Conditions of Use" for more information.

The circuits are designed as "Ex ib", the indicating green laser module and the detecting laser diode are designed as "Ex op is".

## **SPECIFIC CONDITIONS OF USE: YES as shown below:**

1. Do not open when an explosive atmosphere is present.
2. The battery is not replaceable in hazardous areas.
3. Do not charge the battery in hazardous location.
4. Maximum output voltage from charger shall not exceed 5.0V (Um).