



# 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 CSA 14.0029** Page 1 of 5 Certificate history:  
Status: **Current** Issue No: 4 Issue 3 (2017-01-23)  
Date of Issue: 2019-03-04 Issue 2 (2016-05-16)  
Issue 1 (2014-12-04)  
Issue 0 (2014-07-09)  
Applicant: **Gas Clip Thechnologies**  
610 Uptown Blvd  
Suite 4100  
Cedar Hill  
TX 75104  
**United States of America**  
Equipment: **Portable Gas Detector**  
Optional accessory:  
Type of Protection: **Ex ia Ga , Ex d ia Gb**  
Marking: MGC-P-Pump (with KNC LEL sensor); Ex d ia IIC T4 Gb; -20°C ≤ Ta ≤ +50°C  
MGC-IR-Pump (with MIPEX LEL sensor); Ex ia IIC Ga; -20°C ≤ Ta ≤ +50°C

Approved for issue on behalf of the IECEx  
Certification Body:

**Dorin Stochitoiu**

Position:

**Technical Advisor**

Signature:  
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**CSA Group**  
178 Rexdale Boulevard  
Toronto, Ontario M9W 1R3  
Canada





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Manufacturer: **Precise Connections Inc.**  
1114 Explorer St, Duncanville, TX 75137  
**United States of America**

Additional  
manufacturing  
locations:

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 60079-0:2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-1:2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

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 Reports:

[CA/CSA/ExTR14.0027/00](#)  
[CA/CSA/ExTR14.0027/03](#)

[CA/CSA/ExTR14.0027/01](#)  
[CA/CSA/ExTR14.0027/04](#)

[CA/CSA/ExTR14.0027/02](#)

Quality Assessment Reports:

[GB/SIR/QAR14.0007/02](#)

[GB/SIR/QAR15.0006/03](#)



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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The Gas Clip Technologies Multi Gas Clip Pump instrument is a gas detection safety device. The MGC Pump is worn by an individual and monitors concentrations of hydrogen sulfide (H<sub>2</sub>S), carbon monoxide (CO), oxygen (O<sub>2</sub>) and flammable/explosive gases (LEL) in real time. Any levels of gas that are measured above the alarm thresholds programmed into the instrument will trigger audio, visual and vibration alarms.

The detector is worn on the person and does not required regular interaction to perform its function.

**SPECIFIC CONDITIONS OF USE: NO**



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## Equipment (continued):

The product is intrinsically safe and comprised of a main enclosure containing, a display, three gas sensors, two printed circuit boards (one as main and one for battery protection), and a rechargeable battery pack module. The main printed circuit board is secured to the front half of the enclosure with screws.

The only external connections on the equipment are two contacts for the charger input on the back of the equipment. The equipment is only to be charged outside the hazardous area.

The battery pack is comprised of one or two parallel lithium ion cells at 3.8V nominal.

The Gas Clip Technologies Multi Gas Clip Pump instrument comes in two designs:

MGC-IR-Pump: 4 gas detector with MIPEX LEL, H<sub>2</sub>S, CO and O<sub>2</sub> Sensors

MGC-P-Pump: 4 gas detector with KNC LEL, H<sub>2</sub>S, CO and O<sub>2</sub> Sensors



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## **DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Issue 1: This report is to introduce a variation to certification and assess the following modifications:

- i. The label drawing has been revised based to reflect a change in the notification body responsible for the QAN.
- ii. A new IR sensor, MIPEX-02-1-II-3.1X, has been introduced as an alternate to the previously approved MIPEX-02-1-II-1.1X.

Issue2: This report is to introduce a variation to certification and assess the following modifications:

- i. Minor change of the applicant name
- ii. Addition of another manufacturing location
- iii. Marking change per impact of using Exp catalytic bead sensor(subject of DS 2015/016; IECExTAG/401/CD)
- iv. Replacement for an obsolete PTC

Issue 3: This report is to introduce a variation to certification and assess the following modifications:

- i. Addition of an alternate O2 sensor, Model S+4OX.
- ii. Removing Korean manufacturer from the manufacturing locations list
- iii. Revision of label drawing to show the new manufacturing location.

Issue 4: Addition of alternate battery cell models ABI-L103448AR and 103450AR Lumos and drawings revision for editorial changes.  
Addition of alternate battery assembly with single cell in a double cell battery pack.