



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 14ATEX2120** Issue: **0**

4 Equipment: **Portable Gas Detector, Multi Gas Clip, Models, MGC-P- Pump and MGC-IR-Pump**

5 Applicant: **Seetron Inc.**

6 Address: **201 – 403 Bucheon Techno-Park  
192 Yakdae-Dong  
Wonmi-Gu  
Bucheon-City  
Republic of Korea**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012

EN 60079-11:2012

EN 60079-26:2006

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment 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 and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1 G

Ex ia IIC T4 Ga

Ta = -20°C to +50°C

Project Number 70006509

C Ellaby  
Deputy Certification Manager

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**SCHEDULE**

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Issue 0

**13 DESCRIPTION OF EQUIPMENT**

The Gas Clip Technologies Multi Gas Clip Pump instrument is a gas detection 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 require regular interaction to perform its function.

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 re-chargeable 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 two parallel lithium ion cells at 3.8V nominal, each with capacity of 2030mAh.

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.

**14 DESCRIPTIVE DOCUMENTS**

**14.1 Drawings**

Refer to Certificate Annexe.

**14.2 Associated Sira Reports and Certificate History**

Issue	Date	Report number	Comment
0	08 July 2014	R70006509A	The release of the prime certificate.

**15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)**

None

**16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)**

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.



**SCHEDULE**

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**17 CONDITIONS OF CERTIFICATION**

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.

KNC, Model KGS-701 LEL pellistor sensor  
EPS 12 ATEX 1410U

Optosense LLC, Model MIPEX-02-1-II-1.1  
ITS 11ATEX27418U

# Certificate Annexe



Certificate Number: Sira 14ATEX2120  
 Equipment: Portable Gas Detector, Multi Gas Clip, Models, MGC-P- Pump and MGC-IR-Pump  
 Applicant: Seetron Inc.

## Issue 0

Drawing no.	Sheets	Rev	Date (Sira stamp)	Title
GC003-000	1 to 2	4.0	08 Jul 14	MGC-PUMP-GENERAL ASSEMBLY
GC003-001	1 of 1	3.0	08 Jul 14	MGC-PUMP-CASE-TOP
GC003-002	1 of 1	3.0	08 Jul 14	MGC-PUMP-CASE-BOTTOM
GC003-003	1 of 1	2.0	08 Jul 14	MGC-PUMP-LCD BRACKET
GC003-004	1 of 1	2.0	08 Jul 14	MGC-PUMP-Cushion-Pad
GC003-005	1 of 1	3.0	08 Jul 14	MGC-PUMP-Battery-Case
GC003-009	1 of 1	2.0	08 Jul 14	MGC-PUMP-PCB-Assembly
GC003-010	1 of 1	2.0	08 Jul 14	MGC-PUMP-Pump-Housing
GC003-012	1 of 1	2.0	08 Jul 14	MGC-PUMP-Sensor-Pad
GC003-013	1 of 1	2.0	08 Jul 14	MGC-PUMP-Chamber
GC003-014	1 of 1	2.0	08 Jul 14	MGC-PUMP-Gas-Inlet
GC003-015/016/017	1 of 1	2.0	08 Jul 14	Labels
GC003-015	1 of 1	0.3	08 Jul 14	MGC-PUMP-Label-Bubble
GC003-016	1 of 1	5	08 Jul 14	MGC-PUMP-Label-Back-Model
GC003-017	1 of 1	0.4.1	08 Jul 14	Label-Back-Serial (MGC-P/IR-Pump)
GC003-018/019	1 of 1	2.0	08 Jul 14	MGC-PUMP-Donaldson-Filter
GC003-020	1 of 1	1.0	08 Jul 14	MGC-PUMP-Pellet-Filter
GC003-021	1 of 1	2.0	08 Jul 14	MGC-PUMP-Insert-Molding-Part
Gc003-023	1 of 1	4.0	08 Jul 14	MGC-PUMP-Battery Pack Assembly
GC003-023-005	1 of 1	2.0	08 Jul 14	PTC
GC003-023-006	1 of 1	1.0	08 Jul 14	Ni-Plate
GC003-023-007	1 of 1	1.0	08 Jul 14	Ni-Plate
GC003-023-008	1 of 1	1.0	08 Jul 14	Ni-Plate
GC003-023-009	1 of 1	3.0	08 Jul 14	Nomex-TAPE
GC003-023-012	1 of 1	1.0	08 Jul 14	ECO-FILM
GC003-023-013	1 of 1	1.0	08 Jul 14	ECO-FILM
GC003-904	1 of 1	2.0	08 Jul 14	MGC-PUMP-Bolt
PCM SCHEMATIC	1 of 1	0.1	08 Jul 14	MGC Pump battery pack protection schematic
MGC PUMP Schematic	1 of 1	3.0.3	08 Jul 14	MGC PUMP main schematic
Multi Gas Clip Pump Bill of Materials	1 of 9	3.3	08 Jul 14	00176 (MGC-IR-Pump-Boxed Unit)
	2 of 9	3.3	08 Jul 14	00177 (MGC-P-Pump-Boxed Unit)
	3 of 9	3.3	08 Jul 14	00488(MGC-Charger-Selection)
	4 of 9	3.3	08 Jul 14	00174(MGC-IR-Pump-Unit)
	5 of 9	3.3	08 Jul 14	00175(MGC-P-Pump-Unit)
	6 to 7	3.3.1	08 Jul 14	00171(MGC-Pump-PCB)
	8 of 9	3.3.1	08 Jul 14	00173(MGC-Pump-Battery Pack)
	9 of 9	3.3	08 Jul 14	00172(MGC-Pump-Battery PCB)
MGC Pump PCB Layers	1 to 13	3.1	08 Jul 14	MGC Pump PCB Layers v3.0 (CAM350)
MGC Pump PCM PCB Layers	1 to 8	B	08 Jul 14	MGC Pump PCM PCB Layers (CAM350)

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## Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900  
 Fax: +44 (0) 1244 681330  
 Email: [info@siracertification.com](mailto:info@siracertification.com)  
 Web: [www.siracertification.com](http://www.siracertification.com)