



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 13ATEX1002** Issue: **0**

4 Equipment: **Model 5100-02-IT XX Combustible Gas Sensor Module**

5 Applicant: **Sierra Monitor Corporation**

6 Address: **1991 Tarob Court
Milpitas
California
95035
USA**

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 60079-1:2007

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 2G
Ex d IIB+H₂ T5 Gb

Project Number 28687

C Ellaby
Deputy Certification Manager

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 13ATEX1002
Issue 0

13 DESCRIPTION OF EQUIPMENT

The 5100-02-IT-XX Catalytic Bead Gas Sensor Module is comprised of an electronics and sensor enclosure assembly.

The 5100-02-IT-AL has a flameproof, cast aluminum, electrical housing while the 5100-02-IT-SS comes with a 316 stainless steel version. Both housings are equipped with three conduit entries and an enclosure cover with a viewing window; conduit hubs can be either 3/4" FNPT or M20 metric threading. The Transmitter Electronics Assembly consists of one printed circuit board assembly mounted to standoffs under a cover plate. Wiring connections for power and signal interface are located at the rear of the display.

The sensor assembly includes an explosion proof housing containing the gas sensor and a wiring harness for connection to the transmitter and is available in aluminum and 316 Stainless Steel versions. The sensor assembly threads into one of the entries of the enclosure. The Sensor Electronics Assembly consists of one printed circuit board assembly which is held in place by the lower part of the housing and then fully potted from the entry side. The exposed end of the sensor assembly is threaded to allow connection of a rain-shield or calibration gas delivery fitting.

Internal and external earthing facilities are provided.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	24 July 2013	R28687A/00	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.

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 shall be marked with the following warning, "Caution: This area must be known to be free of flammable concentrations prior to opening the enclosure."

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Certificate Annexe

Certificate Number: Sira 13ATEX1002
Equipment: Model 5100-02-IT XX
Combustible Gas Sensor Module
Applicant: Sierra Monitor Corporation



Issue 0

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
A13046	1 of 1	A	19 Jun 13	Model 5100-02-IT, Assy, SMC Catalytic Comb. IT
A21810-28	1 of 1	A1	19 Jun 13	Assy AL Housing T Modules
A21813	1 of 1	A2	19 Jun 13	Model 5100-02-IT Assy, Catalytic
A22072	1 of 1	C5	19 Jun 13	Model 4201/5200-02 Assy, Comb. Euro Version
A22076	1 of 1	B2	19 Jun 13	Model 4201/5200-02 Harness Assembly
A22121	1 of 1	B	19 Jun 13	Assy Switch Magnet Tool
A22136	1 of 1	A	19 Jun 13	Model 4201 / 5200-02 Assy, SS Comb.
B13046	1 of 1	A	19 Jun 13	Assembly SMC Catalytic Combust IT
B21813	1 to 3	A2	19 Jun 13	Assy PCA 5100-02-IT Catalytic
B22072	1 of 1	C5	19 Jun 13	Assy Sensor -02 Euro Version
B22076	1 of 1	B2	19 Jun 13	Assy Harness Euro Combust w/ Shield
C21813	1 to 5	A2	19 Jun 13	Model 5100-02-IT Catalytic Schematic
F39041	1 of 1	B	19 Jun 13	Model 4101/5100-02E Fab, Comb. Sensor Enclosure
F39046	1 of 1	A3	19 Jun 13	Model 4101/5100-02E Fab, Enclosure Seal
F39157	1 of 1	A4	19 Jun 13	Model 4101/5100-02E Fab, Filter Sintered Cup
H35481	1 of 1	A2	19 Jun 13	Model 5100-02-IT Label, ATEX/CE Marking
H35990	1 of 1	A	19 Jun 13	Model 5100-XX-IT-XX Label, Serial #

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