

1 **EC TYPE EXAMINATION CERTIFICATE**

2 Equipment or protective system intended for use in potentially explosive atmospheres –
Directive 94/9/EC – Annex III

3 EC Type Examination **TRAC09ATEX11195X (incorporating variation V1)**
Certificate No.:

4 Equipment: **Gas Monitor, Models P100-CO, P100-O2, P100-HCN, P100-CL2, P100-NO,
P100-NO2, P100-SO2, and P100-H2S**

5 Manufacturer: **Sensit Technologies**

6 Address: **851 Transport Drive, Valparaiso, Indiana 46383, USA**

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

8 TRaC EMC & Safety Ltd, Notified Body number 0891 in accordance with Article 9 of the Council 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 or protective system intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report **16-0006-003818**.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in section 18 of the schedule to this certificate, has been assured by compliance with:

EN 60079-0:2006

EN 60079-11:2007

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions of 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 in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of this equipment or protective system shall include the following:

 **II 1 G Ex ia IIC T4 Tamb = -20°C to +40°C**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the TRaC Ex Certification Scheme.

S.P. Winsor

S P Winsor, Certification Liaison Officer

Issue date: 2009-06-18

Copy No.: 1e

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13 **SCHEDULE TO EC TYPE EXAMINATION CERTIFICATE**

14 **TRAC09ATEX11195X (incorporating variation V1)**

15 **General description of equipment or protective system included within the scope of this certificate**

The gas monitor, models P100-CO, P100-O2, P100-HCN, P100-CL2, P100-NO, P100-NO2, P100-SO2, and P100-H2S are a portable (hand held) battery powered gas monitoring device. The unit comprises a PCB with various components, an electrochemical sensor, a vibrating motor, piezo sounder, and a battery all contained within a main enclosure constructed of plastic.

The unit is powered by a non-replaceable and non-rechargeable lithium battery (Tadiran, Pn TLL-5902/T).

The device contains only one electro-chemical sensor. The following sensors are used in each model:

- o P100-CO: Alphasense Ltd, Model CO-D4, Carbon Monoxide Sensor
- o P100-O2 : Alphasense Ltd, Model O2-G2, Oxygen Sensor
- o P100-HCN: Alphasense Ltd, Model HCN-D4, Hydrogen Cyanide Sensor
- o P100-CL2: Alphasense Ltd, Model CL2-D4, Chlorine Sensor
- o P100-NO: Alphasense Ltd, Model NO-D4, Nitric Oxide Sensor
- o P100-NO2: Alphasense Ltd, Model NO2-D4, Nitrogen Dioxide Sensor
- o P100-SO2: Alphasense Ltd, Model SO2-D4, Sulfur Dioxide Sensor
- o P100-H2S: Alphasense Ltd, Model H2S-D4, Hydrogen Sulfide Sensor

The unit has an environmental ingress protection rating of IP65.

A list of controlled Manufacturer's Documents is given in Appendix A to this schedule.

16 **Test report No.:** 16-0006-003818.

17 **Special conditions for safe use**

None.

18 **Essential health and safety requirements**

Covered by application of the standards listed in section 9 of this certificate and the assessment conducted in the test report listed in section 16 of this certificate.

19 **Additional information (including special conditions for manufacture)**

1. This equipment may only be powered by Tadiran, Pn TLL-5902/T Battery.
2. Checks must be conducted to ensure correct type and location of all components.
3. The PCB shall be conformal coated to meet the requirements of EN60079-11:2007, cl.3.8.
4. PCBs must be verified to comply with approved drawings (Batch checking is allowed)
5. Inductance and resistance of the vibrating motor must be verified to ensure the inductance does not exceed 183.8uH and the resistance is not less than 32.68 Ohms

Manufacturer shall ship instructions that meet the requirements of directive 94/9/EC Annex II, cl. 1.0.6 and clause 30 of EN60079-0 and clause 29.Z1 of EN61241-0 with the equipment. Manufacturer shall make translations of the instructions into other European communities when requested.

Photographs



Details of markings



DOM
MM/DD/YY

- It was noted that the four digit notified body number of the organisation responsible for the quality assurance element of the ATEX certification must be added next to the CE mark.
- It also noted that this marking is for the model P100-CO. All other models follow the same style but with different model references.

Details of variations to this certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 – Update of drawings.

Notes to CE marking

In respect of CE Marking, TRaC EMC & Safety Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

Notes to this certificate

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC09ATEX11195X V1

APPENDIX A - LIST OF CONTROLLED MANUFACTURER'S DOCUMENTS			
Title:	Drawing No.:	Rev. Level:	Date:
P100 Gasket Assy Drawing	D-P100-1	0	2008-12-30
P100 Full Assembly Drawing	D-P100-2	0	2009-01-23
P100 Part Placement Diagram	D-P100-3	0	2008-07-11
Instruction Manual	ISP00100-ATEX	5-6-09	2009-01-15
Bill of Material (Model P100-CL2)	P100 (Tab Name: CL2)	2	2009-03-17
Bill of Material (Model P100-CO)	P100 (Tab Name: CO)	10	2009-03-17
Bill of Material (Model P100-H2S)	P100 (Tab Name: H2S)	10	2009-03-17
Bill of Material (Model P100-HCN)	P100 (Tab Name: HCN)	4	2009-03-17
Bill of Material (Model P100-NO)	P100 (Tab Name: NO)	1	2009-03-02
Bill of Material (Model P100-NO2)	P100 (Tab Name: NO2)	1	2009-03-02
Bill of Material (Model P100-O2)	P100 (Tab Name: O2)	10	2009-03-17
Bill of Material (Model P100-SO2)	P100 (Tab Name: SO2)	1	2009-03-02
D.O.M. Label	PR31766	0	2009-03-13
Label, Back Left, P100	PSP10103-B	4	2009-05-16
Label, Serial, Back Right, P100	PSP10103-S	2	2009-05-16
P100 Bottom Housing	PSP10114	A	2007-07-06
P100 Top Housing	PSP10116	A	2007-07-06
Washer – P100	PSP10124	0	2009-02-27
P-100 LCD Display	PSP10128	0	2008-01-15
Jumbo D Ring Clip Black	PSP10140	1	2009-03-09
Sensor Gasket – P100	PSP10152	2	2009-02-27
Display Gasket – P100	PSP10154	2	2009-02-27
Sounder Gasket	PSP10156	2	2009-02-27
Battery Gasket	PSP10158	1	2009-02-27
P100 Housing Gasket	PSP10160	0	2008-10-29
Membrane, Mupor	PSP10162	1	2009-02-27
Sensit P100 PCB	ZPSP10100	1.96	2008-12-10
Sensit P100 Schematic	ZPSP10100-SCH	1.96	2008-12-10