



## 1. EC - TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3. EC - Type Examination Certificate Number: **IonScience09849**

4. Equipment or Protective System: **TVOC**

5. Manufacture: **Ion Science Limited**

6. Address: **The Way, Fowlmere, Cambridgeshire, SG8 7UJ**

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

8. Ion Science Ltd, in accordance with Article 8 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report No. 849237

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:


**EN60079-0:2006 and EN60079-11:2007**

except in respect of those requirements listed at item 18 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 or protective system. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

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

 **II 3G Ex nA IIC T4 (-40°C < T<sub>a</sub> < +50°C)**

This certificate may only be reproduced in its entirety, without any change, schedule included.

Ion Science Project File No. 849

This certificate is granted subject to the general terms and conditions of product use. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

A handwritten signature in blue ink, appearing to read "M Stockdale".

M Stockdale DIRECTOR  
On behalf of  
Ion Science Ltd

### 13. Schedule

14. Certificate Number IonScience09849

### 15. Description of Equipment or Protective System

TVOC is a wall mounted total volatile organic compound monitor and is designed to monitor the surrounding atmosphere for the presence of volatile organic compounds and provide both a local display of the concentration, and a corresponding 4-20mA signal for remote use

It comprises electronics circuits and connectors on a PCB contained within an enclosure providing a degree of protection of at least IP54 for the main circuits, together with a sensor mounted in a housing which protrudes from the bottom of the main enclosure with a degree of protection at least IP53. The sensor may be marked with any of the following certificate numbers KEMA06ATEX0157U, IECEx CSA 06.0006X KEMA06ATEX0039U or IECEx CSA06.0005X

#### Input and Output Parameters

For connector J1 (power supply): Max working voltage = 24 volts

For connector J2 (4-20mA Output): Max working voltage = 35 volts

### 16. Report Number

849237

### 17. Special Conditions for Safe Use

None

### 18. Essential Health and Safety Requirements

All relevant Essential Health and Safety Requirements are covered by the standards listed at item 9.

### 19. Drawings and Documents

Number	Sheet	Issue	Date	Description
ATEX0052	1 of 1	06	08.09.06	TVOC GA- ATEX (IECEx)
ATEX0053	1 of 4	7	05.09.06	TVOC PCB layout top silk
ATEX0053	2 of 4	7	05.09.06	TVOC PCB layout top copper
ATEX0053	3 of 4	7	05.09.06	TVOC PCB layout bottom copper
ATEX0053	4 of 4	7	05.09.06	TVOC PCB layout bottom silk
ATEX0054	1 & 2	7	13.11.08	TVOC Main circuit diagram
ATEX0055	1 of 4	2	06.07.06	TVOC sensor PCB Top component positions
ATEX0055	2 of 4	2	06.07.06	TVOC sensor PCB top copper
ATEX0055	3 of 4	2	06.07.06	TVOC sensor PCB bottom copper
ATEX0055	4 of 4	2	06.07.06	TVOC sensor PCB bottom component positions
ATEX0056	1 of 1	2	06.07.06	TVOC circuit diagram (sensor PCB)
ATEX0057	1 of 1	9	12.11.08	TVOC schedule of safety critical components
ATEX0081	1 of 1	1	14.09.09	TVOC GA- ATEX (zone2)