



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEX SIR 18.0043X

Issue No: 1

Certificate history:

Issue No. 1 (2019-02-08)

Issue No. 0 (2018-10-05)

Status: **Current**

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Date of Issue: **2019-02-08**

Applicant: **TSI Incorporated**  
500 Cardigan Rd  
Shoreview, MN 55126-3996  
United States of America

Equipment: **Model SidePak AM520I Personal Aerosol Monitor**

*Optional accessory:*

Type of Protection: **Intrinsic Safety**

Marking:

Ex ia I Ma  
Ex ia IIC T4 Ga  
0°C to +50°C

*Approved for issue on behalf of the IECEx  
Certification Body:*

C Ellaby

*Position:*

Deputy Certification Manger

*Signature:  
(for printed version)*

*C. Ellaby*

*Date:*

*2019-02-08*

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**SIRA Certification Service**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





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Manufacturer: **TSI Incorporated**  
500 Cardigan Rd  
Shoreview, MN 55126-3996  
**United States of America**

Additional Manufacturing location(s):

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

*This Certificate **does not** indicate compliance with electrical 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 Report:

[GB/SIR/ExTR18.0175/00](#)

[GB/SIR/ExTR19.0027/00](#)

#### Quality Assessment Report:

[CA/CSA/QAR16.0008/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The SidePak AM520i Personal Aerosol Monitor is a portable, battery-powered device designed to continuously measure the particle mass concentration of the ambient atmosphere. The Sidepak AM520i contains an IEC Class 1 approved laser assembly. External air is drawn through an inlet into an internal optical chamber where the scattered laser light is measured to determine particle mass concentration. The Sidepak AM520i is contained within a polymeric enclosure having an inlet and an outlet port for the ambient flow path and an external USB connection. The removable battery pack contains a barrel-type DC connector used for charging the pack outside of the hazardous area. The user interacts with the instrument through a membrane switch on the front of the enclosure. The equipment has approximate overall dimensions of 87.63 mm (W) x 129.03 mm (H) x 75.44 mm (D).

Refer to the Annexe for additional information.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the Annexe.



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

**Issue 1** - this Issue introduced the following changes:

1. Addition of Group I marking i.e. Ex ia I Ma to the product.
2. Modification of label drawing to accommodate new markings.
3. Creation of a new scheduled drawing for the membrane switch.
4. Creation of a new scheduled drawing with the content of the instructions manual to be controlled.
5. Deletion of 2 drawings from the list of manufacturer's documents.

## Annex:

[IECEx SIR 18.0043X Issue 1 Annexe.pdf](#)