



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx TSA 09.0013X**

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Status: **Current**

Issue No: 12

Date of Issue: 2022-04-19

Applicant: **MSA - The Safety Company**
1000 Cranberry Woods Drive
Cranberry Township PA 16066-5207
United States of America

Equipment: **Altair 5X Diffusion/pumped Multi-gas Detector**

Optional accessory:

Type of Protection: **Intrinsic safety "ia" & Flameproof enclosures "da"**

Marking: Ex ia I Ma
Ex ia IIC T4 Ga (with Ex sensor not installed)
Ex da ia IIC T4 Ga (with Ex sensor installed)
-40°C ≤ Ta ≤ +50°C

Certificate history:

Issue 11 (2020-03-04)
Issue 10 (2017-08-17)
Issue 9 (2016-07-19)
Issue 8 (2015-09-10)
Issue 7 (2014-06-13)
Issue 6 (2013-08-21)
Issue 5 (2011-08-26)
Issue 4 (2011-05-19)
Issue 3 (2011-03-16)
Issue 2 (2010-08-23)

Approved for issue on behalf of the IECEx
Certification Body:

Debbie Wouters

Position:

Acting Quality & Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

19 April 2022

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 www.iecex.com or use of this QR Code.



Certificate issued by:

TestSafe Australia
919 Londonderry Road
Londonderry NSW 2753
Australia





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Manufacturer: **MSA - The Safety Company**
1000 Cranberry Woods Drive
Cranberry Township PA 16066-5207
United States of America

Manufacturing locations: **MSA - The Safety Company**
1000 Cranberry Woods Drive
Cranberry Township PA 16066-5207
United States of America

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 equipment 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 60079-1:2014-06](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[AU/TSA/ExTR07.0035/00](#)
[AU/TSA/ExTR11.0018/00](#)
[AU/TSA/ExTR13.0043/00](#)
[AU/TSA/ExTR16.0016/01](#)

[AU/TSA/ExTR10.0043/00](#)
[AU/TSA/ExTR11.0045/00](#)
[AU/TSA/ExTR15.0026/00](#)
[AU/TSA/ExTR16.0016/02](#)

[AU/TSA/ExTR11.0009/00](#)
[AU/TSA/ExTR13.0039/00](#)
[AU/TSA/ExTR16.0016/00](#)
[AU/TSA/ExTR16.0016/03](#)

Quality Assessment Report:

[FR/INE/QAR08.0011/11](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Altair 5X Multi-gas Detector is a 5 Gas instrument. It contains one dual XCell toxic electrochemical cell, one single XCell toxic electrochemical cell, one XCell combustible cell, and one XCell oxygen electrochemical cell.

It measures 170 mm by 90 mm by 45 mm. The body is made of polycarbonate and the overmoulding is conductive, of the same material as the Altair 4 gas detector. The display may be mono or colour. The apparatus has options of gas sensing by diffusion or pump. The internal battery has available options of rechargeable or replaceable cells. The rechargeable battery is Lithium Ion – one cell. The alkaline battery is AA size alkaline cells – 3 cells (Duracell MN1500, Energizer E91).

The equipment has been separately tested against the requirements of IEC 60529 and it meets IP65.

The equipment contains already tested and certified devices/Ex component, summarized in Table 1.

Table 1 - Item list

Item #	Designation	Type	Ex certificate number/ ExTR number	Standards with Editions	Ex marking code
1	SENS1	Combustible Gas Sensor XCell™ Ex	IECEx FTZU 09.0023U	IEC 60079-0:2017 Ed.7 IEC 60079-1:2014 Ed.7 IEC 60079-11:2011 Ed.6	Ex ia I Ma Ex da ia IIC Ga

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The rechargeable battery shall be charged only in a safe area, the charge voltage (Um) and current (Im) shall not exceed 6.7 Vdc and 1.7 Adc.
2. For alkaline models, only Duracell MN1500 and Energizer E91 AA size alkaline cells can be used in the apparatus.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Details of certificate changes for issue 12:

- Add alternative IC components for U5 & U6 on the Bluetooth board (different footprint).
- Add alternative PCB layout for the Bluetooth board.
- The XCell Combustible Gas Sensor certificate had been updated.

Annex:

[Annexe for IECEx TSA 09.0013X-12.pdf](#)



IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 09.0013X	Issue No.:	12
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Drawing list pertaining to Issue 12 of this Certificate:

Drawing / Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
3098-1187	97	*TestSafe Approvals, Altair5X/Altair5XIR	8	2022-01-27
SK3025-1076	3	Artwork, Australian Approvals, Altair 5X (Marking Label)	2	2020-02-11
SK3098-1394	1	ATT DWG, ALT ASSY, A5X, CLR DSPLY, IECEx	0	2017-02-16

Note: An "*" is added before the title of documents that are new or revised.

Certificate issued by:

	TestSafe Australia 919 Londonderry Road Londonderry NSW 2753 Australia
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