





Mining And Surface Certification (Pty) Ltd

2015/021934/07

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

IA CERTIFICATE	MASC S/21-8005X	Issue	0
Issue Date	06 January 2021	Expiry Date	06 January 2024
*Based on Certificate No	IECEx TSA 06.0031X	Issue / Variations / Amendment	6
Requested by	MSA - The Safety Company 1000 Cranberry Woods Drive Cranberry Township, PA 16066 United States of America		
Manufacturer	Mine Safety Appliances Company, LLC 1000 Cranberry Woods Drive Cranberry Township PA 16066 United States of America		
Description	The "Altair Pro" portable single gas detector is initially available in three gas models e.g. O2, CO and H2S. The O2 model is called "Altair Pro O2". The gas sensing cells are of the electro-chemical type. The instrument is powered by a replaceable CR2 lithium cell. The LCD display panel on the front displays an indication of the level of the detected gas. A push button allows users to select the information viewed on the LCD display. Audible and visual alarm indicators are located on the front of the apparatus, and an imbalanced motor produces an optional vibration alert when in alarm mode.		
Equipment	Altair Pro Portable Single Gas Detector		
MARKING: Original marking as per certificate * remains applicable. IA number to be added.	Type Ex Marking IA Number Warnings	Altair Pro Portable Single Gas Detector Ex ia IIC T4 MASC S/21-8005X See Base Certificate * and original marking	
Quality Assurance report (QAR) / Notification (QAN) Expiry date:	FR/INE/QAR08.0011/05		
Compliance:	The equipment as described above has been allocated the rating <u>Explosion Protected Ex ia IIC T4</u> utilizing the SANS/IEC Standards: <ul style="list-style-type: none"> SANS (IEC) 60079-0:2012 General requirements SANS (IEC) 60079-11:2012 Intrinsic safety "i" 		
Special conditions of safe use "X":	<ul style="list-style-type: none"> See "Annex A" below 		
Conditions of manufacture:	<ul style="list-style-type: none"> See "Annex A" below 		
 C Welthagen TECHNICAL SPECIALIST	 D.P Visser TECHNICAL SPECIALIST		
This certificate covers all units sold as long as the QAR/QAN remains valid. According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).			

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
 SANS 10086 requirements;
 Any conditions mentioned in the above report
 Any restrictions and conditions enforced by the chief inspector of mines or chief inspector of factories
 Any relevant requirements of the MHS Act.

/ . ANNEX A...

This certificate may only be reproduced in full.
 This certificate is not transferable and remains the property of the issuing body

Mining And Surface Certification (Pty) Ltd
 Unit 5 Lelyta Park, 45 Jurg Ave, Hennospark Ext 87
 Centurion, 0157

IA CERTIFICATE: MASC S/21-8005X

Altair Pro Portable Single Gas Detector

ANNEX A

This document is based on and must be read in conjunction with certificate IECEX TSA 06.0031X	
Description (According to Base Certificate *)	
"Refer to description in Base Certificate * (and any applicable schedules/issues/variatioins)."	
Standard compliance	See Base Certificate *
Special conditions of safe use ("X")	See Base Certificate *
Conditions of manufacture	See Base Certificate *
Conditions of Certification	<ul style="list-style-type: none"> • This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate. • As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date). • The apparatus must be additionally marked with the MASC marking details above. • This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date. • The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate. • The certification on which this IA Certificate is based must remain valid. • The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged. • The Ex quality assurance notification/report for the equipment must remain valid.
Conclusion:	<ul style="list-style-type: none"> • From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate *. • The routine tests for production units according to the Base Certificate * must be complied with (if applicable).

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practices



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 06.0031X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 6	Issue 5 (2012-08-09)
Date of Issue:	2016-02-11		Issue 4 (2011-09-02)
Applicant:	Mine Safety Appliances Company, LLC 1000 Cranberry Woods Drive Cranberry Township PA 16066 United States of America		Issue 3 (2008-12-16)
Equipment:	Altair Pro Portable Single Gas Detector		Issue 2 (2008-07-08)
Optional accessory:			Issue 1 (2007-01-09)
Type of Protection:	Ex ia		
Marking:	MSA Altair Pro Gas Detector Ex ia IIC T4 (-20 °C < Ta < +50 °C) IECEx TSA 06.0031X Serial No: _____		

Approved for issue on behalf of the IECEx
Certification Body:

Ujen Singh

Position:

Quality and Certification Manager

Signature:
(for printed version)

Date:

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





IECEx Certificate of Conformity

Certificate No.: **IECEx TSA 06.0031X**

Page 2 of 4

Date of issue: 2016-02-11

Issue No: 6

Manufacturer: **Mine Safety Appliances Company, LLC**
1000 Cranberry Woods Drive
Cranberry Township PA 16066
United States of America

Additional
manufacturing
locations:

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 60079-11:2011 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/ExTR06.0042/00](#)
[AU/TSA/ExTR08.0066/00](#)

[AU/TSA/ExTR06.0042/01](#)
[AU/TSA/ExTR12.0037/00](#)

[AU/TSA/ExTR08.0026/00](#)
[AU/TSA/ExTR15.0029/00](#)

Quality Assessment Report:

[FR/INE/QAR08.0011/05](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx TSA 06.0031X**

Page 3 of 4

Date of issue: 2016-02-11

Issue No: 6

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The "Altair Pro" portable single gas detector is initially available in three gas models e.g. O₂, CO and H₂S. The O₂ model is called "Altair Pro O₂". The gas sensing cells are of the electro-chemical type. The instrument is powered by a replaceable CR2 lithium cell. The LCD display panel on the front displays an indication of the level of the detected gas. A push button allows users to select the information viewed on the LCD display. Audible and visual alarm indicators are located on the front of the apparatus, and an imbalanced motor produces an optional vibration alert when in alarm mode.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The lithium batteries of Panasonic CR-2PA/1B, Energizer CR2 EL1CR2BP, Varta CR2 6206 and Varta (Power One) CR2 CR15H270, 6206 can be used in the apparatus.
2. The maximum length of the remote sensor connecting cable in the "Altair Pro-R O₂" does not exceed 3.3 metres (10 feet).



IECEx Certificate of Conformity

Certificate No.: **IECEx TSA 06.0031X**

Page 4 of 4

Date of issue: 2016-02-11

Issue No: 6

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variations Permitted by Issue 6:

The applicant and manufacturer name was changed from Mine Safety Appliances Company to Mine Safety Appliances Company, LLC.

Updated standards to IEC 60079-0:2011 and IEC 60079-11:2011.

Annex:

[Annex for IECEx TSA 06.0031X-6.pdf](#)



IECEX Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEX TSA 06.0031X	Issue No.:	6
-----------------------------	--------------------	------------	---

Drawing list pertaining to Issue 6 of this Certificate:

Drawing/Document Number:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
SK3098-1014	28	Altair Pro TestSafe	4	2012-05-18
10069170	3	Label, Approval, Altair Pro	6	2015-02-27
10074734	47	Altair Pro Single Gas Detector Operating Manual	3	-

Conditions of Certification pertaining to Issue 6 of this Certificate:

1. The lithium batteries of Panasonic CR-2PA/1B, Energizer CR2 EL1CR2BP, Varta CR2 6206 and Varta (Power One) CR2 CR15H270, 6206 can be used in the apparatus.
2. The maximum length of the remote sensor connecting cable in the "Altair Pro-R O₂" does not exceed 3.3 metres (10 feet).

Certificate issued by:

	TestSafe Australia 919 Londonderry Road Londonderry NSW 2753 Australia
---	---