Mining And Surface Certification (Pty) Ltd

2015/021934/07

THIS CERTIFICATE IS ISSUED AS AN I.A. CERTIFICATE IN TERMS OF THE MINE HEALTH AND SAFETY ACT, ACT NO 29 OF 1996 (AND REGULATIONS), THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND REGULATION 17 OF THE ELECTRICAL MACHINERY REGULATIONS

IA CERTIFICATE	MASC MS/21-8009X	**Issue**	2
Issue Date	11 November 2024	**Expiry Date**	11 November 2027
**** Based on Certificate No**	IECEx FTZU 15.0009X	**Issue / Variations / Amendment**	2
Requested by	**MSA – The Safety Company** 1000 Cranberry Woods Township, PA 16066, United States of America		
Manufacturer	**MSA - The Safety Company** 1000 Cranberry Woods Drive, Cranberry Township, PA 16066, United States of America		
Description	The equipment is the handheld multigas detector type Altair 5X PID. The equipment is designed to monitor gases in an ambient air and in a workplace. It is available with a maximum of five sensors which can display readings for six gases. The sensors have own Ex component certificates. The equipment consists of four PCBs with display, three buttons and two charging pins. All PCBs with display are mounted inside a static dissipative moulded plastic enclosure. If the gas concentration reaches the alarm set points, a visual alarm, an audible alarm and a tactile alarm is given. The equipment is supplied by an encapsulated secondary Li-Ion cell and includes one passive RFID tag. This certificate does not include the performance tests according to IEC 60079-29-1. Parameters: Degree of protection: IP 65, Ambient temperature: -20 to +50°C, Charging: Um = 6.7 V See **Base certificate for full description.		
Equipment	Multigas Detector ALTAIR 5X PID		
MARKING: **Original marking as per certificate ** remains applicable.** **IA number must be added.**	**Type:** **Ex Marking:** **IA Number:** **Warnings:**	Multigas Detector ALTAIR 5X PID Ex ia I Ma Ex da ia IIC T4 Ga MASC MS/21-8009X (To be additionally marked on equipment) See Base Certificate ** (original marking must be applied)	
Quality Assurance report (QAR) / Notification (QAN):	FR/INE/QAR08.0011/14		

Compliance:

The equipment as described above has been allocated the rating Explosion Protected 'as above' utilizing the SANS/IEC Standards:

- SANS (IEC) 60079-0: 2019 Equipment - General requirements
- SANS (IEC) 60079-1: 2015 Equipment protection by flameproof enclosures "d"
- SANS (IEC) 60079-11: 2012 Equipment protection by intrinsic safety "i"

Note: This certificate covers only the listed standards and does not imply compliance to any other standard, related or inferred. It is up to the manufacturer to ensure that the product complies to all relevant standards for the application.

Specific conditions of use "X":

- Refer to Annex A below for more details.

Conditions of manufacture:

- Refer to Annex A below for more details.

S. JORDAAN
TECHNICAL SPECIALIST

N. VILOJEN
TECHNICAL OFFICER

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 certificate;
Any relevant requirements of the MHS Act;
Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).

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

IA CERTIFICATE: MASC MS/21-8009X
Equipment: Multigas Detector ALTAIR 5X PID
(Expiry date: 11 November 2027)

ANNEX A

This document is based on and must be read in conjunction with certificate IECEx FTZU 15.0009X.	
Description (According to Base Certificate) **	
"Refer to description in Base Certificate ** (and any applicable schedules/issues/variations)."	
Standard compliance	See Base Certificate ******
Supplementary	Issue 1: Supplemented for QAR review as per ARP 0108 & NCoP 2398. Issue 2: Supplemented for QAR review as per ARP 0108 & NCoP 2398.
Specific conditions of use ("X")	• The equipment shall be charged by manufacturer's chargers only in an ambient temperature from 0°C to +45°C and opened when the hazardous area is not present. • When using the equipment in hazardous area, the equipment should be worn or carried on the body. It shall not be stored in a hazardous area. This prevents the possibility of the equipment building up an electrostatic charge. The measured capacitance of accessible metal parts: D-Ring 24pF and Charge contact pins 17pF. • The antenna used for activation of the internal RFID tag with the RF radiation power shall not exceed 6W for Group I and 2W for Group IIC.
Conditions of manufacture	• None.
Conditions of Certification	• This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate. • As per ARP 0108: 2018 / NCoP 2398: 2022 (as applicable) 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 in 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 0108:2018 / NCoP 2398: 2022 (as applicable), 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:	• 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).

Mining And Surface Certification (Pty) Ltd Reg No: 2015/021934/07
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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 FTZU 15.0009X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2017-03-23) Issue 0 (2015-08-28)
Date of Issue:	2021-12-15		
Applicant:	**MSA - The Safety Company** 1000 Cranberry Woods Drive Cranberry Township PA 16066 **United States of America**		
Equipment:	**Multigas Detector ALTAIR 5X PID**		
Optional accessory:			
Type of Protection:	**Intrinsic safety**		
Marking:	Ex ia I Ma Ex da ia IIC T4 Ga		

Approved for issue on behalf of the IECEx Certification Body: **Dipl. Ing. Martin Gregor**

Position: **Vice Head of Certification Body**

Signature:
(for printed version)

Date:
(for printed version)

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:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

IECEx Certificate of Conformity

Certificate No.: **IECEx FTZU 15.0009X**

Date of issue: 2021-12-15 Issue No: 2

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

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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 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:

CZ/FTZU/ExTR15.0009/00 CZ/FTZU/ExTR15.0009/01 CZ/FTZU/ExTR15.0009/02

Quality Assessment Report:

FR/INE/QAR08.0011/11

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The equipment is the hand held multigas detector type Altair 5X PID. The equipment is designed to monitor gases in an ambient air and in a workplace. It is available with a maximum of five sensors which can display readings for six gases. The sensors have own Ex component certificates. The equipment consists of four PCBs with display, three buttons and two charging pins. All PCBs with display are mounted inside a static dissipative moulded plastic enclosure. If the gas concentration reaches the alarm set points, a visual alarm, an audible alarm and a tactile alarm is given. The equipment is supplied by an encapsulated secondary Li-Ion cell and includes one passive RFID tag. This certificate does not include the performance tests according to IEC 60079-29-1.

Parameters:
Degree of protection: IP 65, Ambient temperature: -20 to +50°C, Charging: Um = 6.7 V;

List of used Ex components:
Catalytic sensor MSA XCell Ex, Ex da ia IIC Ga, Ex ia Ma, certified by IECEx FTZU 09.0023U Issue 1
El.chem. sensor MSA XCell eChem, Ex ia IIC Ga, Ex ia Ma ,certified by IECEx FTZU 09.0024U Issue 3
PID sensor Baseline-MoconTech PiD-TECH eVx, Ex ia IIC Ga, certified by IECEx UL 13.0050U Issue 1
PID sensor Tech sensor plus ZPP60180, Ex ia IIC Ga, certified by IECEx UL 06.0011U Issue 2

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. The equipment shall be charged by manufacturer’s chargers only in an ambient temperature from 0°C to +45°C and opened when the hazardous area is not present.

2. When using the equipment in hazardous area, the equipment should be worn or carried on the body. It shall not be stored in a hazardous area. This prevents the possibility of the equipment building up an electrostatic charge. The measured capacitance of accessible metal parts: D-Ring 24pF and Charge contact pins 17pF.

3. The antenna used for activation of the internal RFID tag with the RF radiation power shall not exceed 6W for Group I and 2W for Group IIC.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The assessment according to the new edition of the standard IEC 60079-0:2017.
The monochrome display module was added as a second option to the colour display module.