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

Certificate No.:	IECEx FTZU 15.0009X	Issue No: 0	Certificate history: Issue No. 0 (2015-08-28)
Status:	**Current**	Page 1 of 3	
Date of Issue:	**2015-08-28**		
Applicant:	**Mine Safety Appliances Co. LLC** 1000 Cranberry Woods Drive Cranberry Townshio Pa 16066 **United States of America**		
Electrical Apparatus:	**Multigas Detector ALTAIR 5X PID/IR**		
Optional accessory:			
Type of Protection:	**Intrinsic safety**		
Marking:	Ex ia I Ma Ex db ia I Ma - when MSH2ia sensor is installed Ex db ia mb IIC T4 Gb Ex ia IIC T4 Ga - when MSH2ia and XCell Ex sensor is not installed		

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

Position: Vice Head of Certification Body

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 the Official IECEx Website.

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	Issue No: 0
Date of Issue:	**2015-08-28**	Page 2 of 3

Manufacturer: **Mine Safety Appliances Co. LLC**
1000 Cranberry Woods Drive
Cranberry Townshio
Pa 16066
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 electrical 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 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-18 : 2009 Edition:3	Explosive atmospheres Part 18: Equipment protection by encapsulation "m"

*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:

CZ/FTZU/ExTR15.0009/00

Quality Assessment Report:

FR/INE/QAR08.0011/05

IECEx Certificate of Conformity

Certificate No:	IECEx FTZU 15.0009X	Issue No: 0
Date of Issue:	2015-08-28	Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The equipment is the hand held multigas detector type Altair 5X PID/IR. 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 type XCell Ex certified by IECEx FTZU 09.0023U Issue 1
El.chem. sensor MSA type XCell eChem certified by IECEx FTZU 09.0024U Issue 3
PID sensor Baseline-Mocon type PiD-TECH eVx certified by IECEx UL 13.0050U Issue 1
PID sensor Baseline-Mocon type ZPP60180 certified by IECEx UL 06.0011U Issue 2
IR sensor Dynament type MSH2ia certified by IECEx FTZU 15.0002U Issue 0

CONDITIONS OF CERTIFICATION: 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.