

This is a translation of the original Certificate of Conformity issued by CSA Group Testing UK Ltd.



## Certificate of Conformity

Electrical Equipment used in Potentially Explosive Atmospheres

Certificate number: CSAUK 18JPN014

Name and Address of Applicant: MSA – The Safety Company  
1000 Cranberry Woods Drive  
Cranberry Twp  
PA 16066-5296  
United States of America

Name and Address of Manufacturer: MSA – The Safety Company  
1000 Cranberry Woods Drive  
Cranberry Twp  
PA 16066-5296  
United States of America

Equipment Title: ALTAIR 4XR Multi Gas Detector, with Xcell Ex Sensor

Type Identification: ALTAIR 4XR Multi Gas Detector, with Xcell Ex Sensor

Type of Protection: Flameproof and Intrinsically Safe

Certificate number: CSAUK 18JPN014

Expiry Date: 11/02/22

Ex-Coding to be Marked on the Product: Ex da ia IIC T4 Ga  
Rated Voltage Um: 6.7 VDC

Additional Information: Ta = -40°C to +60°C

Specific Conditions of Use: See below

This is to certify that the equipment has been found to comply with the current  
**Ordinance on Certification of Machines and Equipment  
of the Ministry of Health, Labour and Welfare, Japan**

Original Date: 11/02/19 Report No. R70184608A  
Renewal Date: 11/02/22 Report No. R70184608A

Certification Manager  
Neil Jones

Managing Director  
James May

CSA Group Testing UK Ltd.  
Unit 6  
Hawarden Industrial Park  
Hawarden  
Deeside CH5 3US  
United Kingdom

This is a translation of the original Certificate of Conformity issued by CSA Group Testing UK Ltd.



## Certificate of Conformity

Electrical Equipment used in Potentially Explosive Atmospheres

Certificate number: CSAUK 18JPN014

### Product description

The MSA ALTAIR® 4XR is a handheld battery operated Multi-gas Detector with Bluetooth capabilities that can measure between 1 and 4 gases using a combination of the following MSA XCell® Sensors: one catalytic-bead combustible cell, one oxygen electrochemical cell and one dual toxic electrochemical cell. The enclosure is rectangular in shape, includes an LCD display window, and is manufactured from a non-metallic material with an overmold. There is an external connection that is only used for charging the battery and shall only be connected when located in a non-hazardous location.

#### The MSA XCell™ Toxic and O<sub>2</sub>

The MSA XCell™ Toxic and O<sub>2</sub> is a Low Power Electro-Chemical (eChem) Toxic Gas Sensor. Supplied with FTZU ExTR report, CZ/FTZU/ExTR09.0024, supplied by Physical Technical Testing Institute located at Pikartská 7, 716 07 Ostrave-Radvanice, Czech Republic.

The sensor consist of a two compartment polymeric enclosure approximately 16 mm diameter by 12 mm high. The electro-chemical gas detection cell is in the top compartment and the detection and communication circuit is in the lower compartment on the one PCB. Three or four metal ribbons feed through sealed tubes along the detection cell perimeter to electrically connect the detection cell to the circuit. Four electrical interface pins extend from the circuit compartment: power, ground (power return), transmit and receive. The gas detection cell has no direct interface to the sensor pins, and does not add any voltage, current, power, capacitance or inductance that would alter the evaluation of the sensor circuit

The MSA ALTAIR® 4XR have additional sensor MSA XCell Ex sensor. The sensor details as below.

The MSA XCell™ Ex is a component, combustible gas sensor. Supplied with FTZU ExTR report, CZ/FTZU/ExTR09.0023, supplied by Physical Technical Testing Institute located at Pikartská 7, 716 07 Ostrave-Radvanice, Czech Republic.

The sensor consists of a polymeric enclosure approximately 16mm in diameter by 12mm high with two sections. The catalytic bead section is located at one end of the sensor, and an encapsulated electronic detection and communication circuit section providing the enclosure seal at the other end. A stainless steel breathing device prevents the propagation of ignition capable flame or hot gases from the catalytic bead section.

Four electrical interface pins extend from the circuit section through a baseplate to provide the following connections: power, ground, transmit and receive. The minimum enclosure thickness is 1mm and the enclosure seal is at least 3mm thick. The overall outer surface area of the sensor is 10cm<sup>2</sup>.

### Specific Conditions of Use

1. Charging the battery shall only be connected when located in a non-hazardous location.