



# Certificate of Compliance

**Certificate:** 70110604

**Master Contract:** 167534

**Project:** 80096951

**Date Issued:** 2022-02-08

**Issued To:** MSA - The Safety Company  
1000 Cranberry Woods Dr  
Cranberry Township, Pennsylvania, 16066-5296  
United States

**Attention:** Craig Gestler

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*

**Issued by:**   
William E. Miller



## **PRODUCTS**

CLASS - 4828 01 - SIGNAL APPLIANCES - Combustible Gas Detection Instruments-For Hazardous Locations

CLASS - 4828 81 - SIGNAL APPLIANCES - Combustible Gas Detection Instruments For Hazardous Location - Certified to U.S. Standards

**Class I, Division 1, Groups A, B, C, & D, Class II, Division 1 Groups E, F, & G, Class III; T4**

**Ex ia IIC T4 Ga (Zone 0) – Without XCell Ex Sensor**

**Ex da ia IIC T4 Ga (Zone 0) – With XCell Ex Sensor**

**Class I, Zone 0, AEx ia IIC T4 Ga (Zone 0) – Without XCell Ex Sensor**

**Class I, Zone 0, AEx da ia IIC T4 Ga (Zone 0) – With XCell Ex Sensor**



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Combustible multi gas detector, model ALTAIR 4XR, portable, powered by a rechargeable Lithium Ion Polymer Battery Cell, Sony model US503759A8H, rated 3.8 V (nominal), 1400 mAh (nominal). MSA battery pack part number 10083913. Ambient temperature range  $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ . For combustible gas detection performance the ambient temperature range is  $-20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ . IP68 (2 m, 1 hour)

### **APPLICABLE REQUIREMENTS**

|                                                               |                                                                                                                                     |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| CAN/CSA-C22.2 No. 0:20                                        | General requirements - Canadian Electrical Code, Part II                                                                            |
| CAN/CSA C22.2 No. 60079-0:19                                  | Explosive atmospheres –<br>Part 0: Equipment – General requirements                                                                 |
| CAN/CSA-C22.2 No. 60079-1:16                                  | Explosive atmospheres –<br>Part 1: Equipment protection by flameproof enclosures “d”                                                |
| CAN/CSA-C22.2 No. 60079-11:14<br>(R2018)                      | Explosive atmospheres –<br>Part 11: Equipment protection by intrinsic safety “i”                                                    |
| CAN/CSA-C22.2 No. 60079-29-1:17                               | Explosive atmospheres –<br>Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases                     |
| CAN/CSA C22.2 No. 60529:16                                    | Degrees of protection provided by enclosures (IP Code)                                                                              |
| CAN/CSA-C22.2 No. 61010-1-12<br><i>Third Edition</i>          | Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 1: General requirements            |
| ANSI/UL 60079-0-2020<br><i>Seventh Edition</i>                | Explosive atmospheres –<br>Part 0: Equipment – General requirements                                                                 |
| ANSI/UL 60079-1-2009<br><i>Sixth Edition (April 10, 2009)</i> | Explosive Atmospheres –<br>Part 1: Equipment Protection by Flameproof Enclosures “d”                                                |
| ANSI/UL 60079-11-2018<br><i>Sixth Edition</i>                 | Explosive Atmospheres –<br>Part 11: Equipment Protection by Intrinsic Safety “i”                                                    |
| ANSI/UL 60079-29-1-2019<br><i>Second Edition</i>              | Explosive atmospheres –<br>Part 29-1: Gas detectors – Performance requirements of detectors for flammable gases                     |
| ANSI/UL 913-2015<br><i>Eighth Edition</i>                     | Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous (Classified) Locations |
| ANSI/UL 61010-1-2012<br><i>Third Edition (May 11, 2012)</i>   | Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use — Part 1: General Requirements            |
| NEMA ANSI/IEC 60529-2004<br>(R2011)                           | Degrees of Protection Provided by Enclosures (IP Code)                                                                              |

### **MARKINGS**

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.



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Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

**Nameplate adhesive label material approval information:**

The nameplate is a CSA accepted adhesive backed label manufactured by Zebra Technologies, 3 mil thick, imprintable gloss white polyester Z – Ultimate 3000T with a pressure sensitive 3000 adhesive using 5100 ribbon on a Zebra printer.

- Manufacturer's name: "MSA - THE SAFETY COMPANY", trademark or CSA master contract number "167534" adjacent to the CSA Mark.
- The characters "CSA 17.70110604", designating the certification body, followed by the last two digits of the year of report issue, followed by a period, followed by the original report number.
- The CSA Mark, with or without the "C" and/or "US" indicators, as shown on the Certificate of Conformity.
- Hazardous Location designation and/or Method of Protection (Ex) markings: As specified in the PRODUCTS section above.
- Temperature code: As specified in the PRODUCTS section above.
- Model number: As specified in the PRODUCTS section above.
- Battery pack details: As specified in the PRODUCTS section above. Due to product size marking may be provided in the manual.
- Ambient temperature rating: As specified in the PRODUCTS section above.
- Enclosure rating: IP68 (2 m, 1 hour).
- Serial number X... & Date code, which is comprised of a letter for month, two digit year, E0=no extended warranty and E1=extended warranty
- The following or equivalent wording:
  - "Exia".
  - "INTRINSICALLY SAFE" and "SÉCURITÉ INTRINSÈQUE";
  - "60079-29-1"
  - "WARNING: UNDERSTAND MANUAL BEFORE OPERATING" and "AVERTISSEMENT: LIRE ATTENTIVEMENT LES INSTRUCTIONS AVANT DE METTRE EN MARCHÉ."
- The following or equivalent warning markings (Due to product size marking may be provided in the manual):
  - "WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY" and "AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE"
  - "WARNING: USE ONLY BATTERY PACK P/N 10083913" and "ATTENTION: UTILISEZ UNIQUEMENT BATTERIE P/N 10083913"
  - "WARNING: BATTERIES MUST ONLY BE CHANGED OR CHARGED IN AN AREA KNOWN TO BE NONHAZARDOUS." and "AVERTISSEMENT: NE CHANGER OU



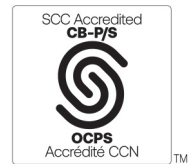
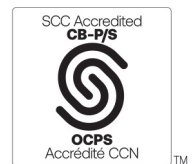
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- CHARGER LES BATTERIES QUE DANS DES EMPLACEMENTS DESIGNES NON DANGEREUX.”
- “WARNING: UNDERSTAND MANUAL BEFORE OPERATING” and “AVERTISSEMENT: LIRE ATTENTIVEMENT LES INSTRUCTIONS AVANT DE METTRE EN MARCHE.”
  - "CAUTION — OFF-SCALE READINGS MAY INDICATE EXPLOSIVE CONCENTRATION." and "ATTENTION - LES LECTURES HORS ÉCHELLE PEUVENT INDIQUER UNE CONCENTRATION EXPLOSIVE."

Notes:

Products certified under Class C482801, C482881 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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| <b>Project</b> | <b>Date</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 80096951       | 2022-02-08  | Update of report 70110604 of the MSA ALTAIR® 4XR to add an alternate PCB to support alternate footprints of U17 and U19. This project report also allows for the selective population of Bluetooth module (U18) and support microprocessor (U16) for both PCB options. CSA C22.2 No 157 was removed as one of the Applicable Requirements. CSA C22.2 No 152 was replaced with CSA C22.2 No. 60079-29-1:17. Report also updated to CSA C22.2 No 60079-0:19, ANSI/UL 60079-0-2020 Seventh Edition, ANSI/UL 60079-29-1-2019 Second Edition, and CSA C22.2 No.0:20. Descriptive Documents SK3098-1360 and 10175895 were changed. Gas performance temperature range increased to $-20^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ . |
| 80032665       | 2020-04-30  | Update to Report 70110604 to include evaluation of a revised sensor filter material for the Altair 4XR, and (per 80033114) to include evaluation of the impact of the firmware change for the Altair 4XR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 80022729       | 2019-11-21  | Update to Report 70110604 to include revised drawing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 80002959       | 2019-07-22  | Update to report 70110604 to include French version of firmware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 70110604       | 2017-03-03  | Original certification of the ALTAIR 4XR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |