# ALTAIR io™ 4 Gas Detection Wearable

## Device Specifications

| | |
|---|---|
| **APPLICATIONS** | Turnarounds & Plant Maintenance, Emergency Response, Confined Space |
| **MARKETS** | Utilities, Construction, Oil & Gas, Mining, Fire Service, General Industry |
| **DATA LOGGING*** | Minimum 90-day cloud-synced data logs.<br>Device data synced and stored in customer Grid account. |
| **SIZE** | |
| WEIGHT | 9 oz. (261 g) |
| DIMENSIONS | 4.6 x 3.1 x 1.5 in. (11.7 x 7.8 x 3.9 cm) |
| **DURABILITY** | • Exceeds 26 drops from 4 feet (1.2 m) (MIL-STD-810G 516.6 Transit Drop)<br>• Capable of surviving an incidental 25 foot (7.5 m) drop onto concrete<br>• Survives 60 minutes in NFPA 1982-2018 tumble tester<br>• Dust and waterproof IP68 rating (2 m for 1 hour) |
| **WARRANTY** | Always under warranty with subscription. 4 years with purchase option. |
| **APPROVALS/ STANDARDS** | FCC and Industry Canada<br>Class I, Division 1, Groups A, B, C and D T4 -20°C to +55°C<br>Class I, Zone 0, AEx da ia IIC Ga T4 |

** 30 days data storage on Device without network connection*

## Sensor Life

| Gas | Type | Typical Sensor Life* | Range | Resolution |
|---|---|---|---|---|
| **COMBUSTIBLE** | Catalytic | 5 Years | 0-100% LEL or Varying Vol % | 1% LEL or 0.05 Vol % |
| **$O_2$** | Electrochemical | 7 Years | 0 – 30 Vol % | 0.1 Vol % |
| **CO** | Electrochemical | 7 Years | 0 – 1,999 ppm | 1 ppm |
| **$H_2S$** | Electrochemical | 7 Years | 0 – 199 ppm | 1 ppm |
| **$H_2S$ - LOW CONCENTRATION** | Electrochemical | 7 Years | 0 – 99.9 ppm | 0.1 ppm |
| **$SO_2$** *(coming soon)* | Electrochemical | 7 Years | 0 – 20 ppm | 0.1 ppm |
| **$NO_2$** *(coming soon)* | Electrochemical | 7 Years | 0 – 50 ppm | 0.1 ppm |
| **CO - HYDROGEN RESISTANT** | Electrochemical | 7 Years | 0 – 1,999 ppm | 1 ppm |

** Typical sensor life can vary due to environmental conditions and/or combustible sensor poisoning*




## Battery & Charging

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|---|---|
| **BATTERY** | 2 Ah Rechargeable |
| **CHARGING TIME** | Typical full charge is 4.5 hours at room temperature |
| **CHARGING TEMP. RANGE** | 32°F – 104°F (0°C – 40°C)*<br>**For best results, charge device at room temperature of around 23 °C (73 °F)* |
| **BATTERY LIFE** | |
| LTE-M | 17 hours typical (LTE-M)* |
| 2G | 16 hours typical |
| | **Actual battery run-time will vary depending on factors including cellular coverage, GPS coverage, ambient temperature, usage, active alerts, acknowledgment delay of alerts, location changes, RFID reading, gas readings, device navigation, battery age, and battery cycles.* |

## Connectivity Specifications

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|---|---|
| **LOCATION AWARENESS** | |
| GNSS | Concurrent GNSS *(GPS and GLONASS)* |
| GPS UPDATE FREQUENCY | 30 seconds*<br>**Location is updated every 30 seconds when a position is acquired. When no position is acquired, the device searches for a location every five minutes to conserve battery life of the device.* |
| **GPS ACCURACY** | 8 ft. (2.5 m)*<br>**GPS accuracy will be influenced by surroundings, infrastructure, and environmental conditions.* |
| **RFID READER** | Used by MSA id Tags for digital device assignment and ALTAIR io DOCK communication |
| **CELLULAR** | LTE-M / 2G Fallback |
| **BLUETOOTH** | v4.1 Bluetooth Low-Energy (BLE) |

Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice. MSA is a registered trademark of MSA Technology, LLC in the US, Europe, and other Countries. For all other trademarks visit https://us.msasafety.com/Trademarks.

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**1708-097-EU / 09.2024**
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