

# ALTAIR<sup>®</sup> 4X

## IT'S WHAT'S INSIDE THAT COUNTS

ALTAIR 4X Multi-Gas Detector  
with MSA XCell Sensor Technology



**MSA**  
The Safety Company

# PERFORMANCE BEYOND WHAT YOU SEE

**OUR VISION OF SAFETY.** Workers who face potentially dangerous situations deserve the best protection available. At MSA, we work tirelessly to build smarter, better gas detection instruments that people across the world can rely on. To that end, we're proud to introduce the most advanced technology available in any portable gas detector on the market: **the ALTAIR 4X Multi-Gas Detector with XCell Sensor Technology.**

## Built on Durability

The ALTAIR 4X Multi-Gas Detector for LEL, CO, H<sub>2</sub>S and O<sub>2</sub> is as tough and functional as it looks. A rugged housing IP 67 (dust and water resistant) provides unsurpassed durability, including the ability to withstand a 6 m drop onto concrete. And with large, glove-friendly buttons and a high-contrast display, the ALTAIR 4X Multi-Gas Detector is easy to operate in any work environment, even low-light conditions.

## Powered by Performance

Toughness and durability aren't the whole story. The real strength of the ALTAIR 4X Multi-Gas Detector comes from new sensor technology. MSA XCell Sensors are designed for an average life of more than four years and are engineered using MSA's proprietary application-specific integrated circuit (ASIC) design. By miniaturizing the sensors' controlling electronics and placing them inside the sensor itself, MSA XCell Sensors offer superior stability under extreme environmental conditions, accuracy and repeatability.

MSA XCell Sensors are a breakthrough in chemical and mechanical sensor design, enabling faster response and calibration times. With less time spent on calibration and bump tests, you save calibration gas, maintenance costs and, in turn, save money. But most importantly, in your industry, saving seconds on response time can also mean saving lives.

## Count on the ALTAIR<sup>®</sup> 4X

Exclusive safety features like MotionAlert and InstantAlert make the ALTAIR 4X Multi-Gas Detector ideal for applications like confined space entry. The MotionAlert sensor activates when a user becomes disabled and motionless, quickly alerting others to the disabled user's location. And with a simple push of a button, the InstantAlert feature enables users to manually alert others to potentially hazardous situations.

The detector comes with a full three-year warranty, so you can depend on the ALTAIR 4X Multi-Gas Detector to withstand the wear and tear that other portable gas detectors can't.

# XCell

SENSORS

MSA XCell  
Combustible Sensor

MSA XCell  
CO/H<sub>2</sub>S Sensor

MSA XCell  
Oxygen Sensor



Adding micro-electronics inside the sensors provides more control and higher performance than previous generations



MSA XCell Sensors are a breakthrough in chemical and mechanical sensor design, enabling faster response and calibration times

**THE MSA COMMITMENT** FROM THE LATEST IN SENSOR TECHNOLOGY TO INSTRUMENT DESIGN AND MANUFACTURING, MSA HAS THE CAPABILITIES AND KNOWLEDGE TO SUPPORT YOUR PORTABLE GAS DETECTION CHALLENGES.

## MSA XCell Technology:

# Save Time, Save Money, Save Lives

### Building on years of sensor design experience, MSA is revolutionising sensor technology with breakthroughs in design that improve performance.

- Sensor response and clear times under 15 seconds
- Bump test under 15 seconds
- Span calibration time under 60 seconds
- Greater signal stability and repeatability under changing or extreme environmental conditions
- Two-tox CO/H<sub>2</sub>S sensor with virtually no cross-channel interference
- The digital output of the sensors makes them much less susceptible to RF interference

### With reliable, extended-life XCell Sensors, there's no need to replace sensors after two years.

- Typical life greater than four years
- Laser-welded sensor housings eliminate opportunities for leaks
- Proprietary operating mode of the combustible sensor helps it stand up to poisons over the life of the sensor
- End-of-sensor-life indicator gives advanced warning to the user, eliminating service outages

## Technology That's Tough

### Life-Saving Performance

- Large buttons and a bright display enable quick and easy operation even while wearing gloves
- If a user becomes disabled due to unforeseen hazards, the MotionAlert sensor will activate after 30 seconds
- The InstantAlert feature enables users to manually alert others of a dangerous situation with the push of a button
- Compatible with GALAXY Test System and ALTAIR 4 QuickCheck Station
- MSA Link Software-ready
- Global approvals for worldwide acceptance

### Lasting Durability

- Full three-year warranty supports the entire detector, including the sensors and battery
- Withstands extreme impacts with rugged polycarbonate housing
- Passes 6 m drop test
- The IP 67-rated ALTAIR 4X is both dust tight and water tight

### Applications/Markets

- Oil, gas and petrochemical
- Pharmaceutical
- Chemical
- Confined spaces
- Fire service
- Utilities and telecommunications
- Municipal works, waste water



New glow-in-the-dark housing for confined spaces applications

MSA Link Software-ready

MotionAlert sensor signals "man down"

InstantAlert feature allows users to manually alert others to a dangerous situation

Large buttons for easy operation

End-of-sensor-life warning

Large, high-contrast liquid crystal display

Rugged stainless steel clip

Ultra-bright LEDs on top and bottom

MSA XCell Sensors with protected sensor inlet

95+ dB alarm

24-hour battery run time

Easy bump-check mode with 24-hour checkmark indicator

Durable, rubberised housing for secure grip



■ MSA-exclusive feature

## Technical Specifications

Gas	Range	Resolution
LEL	0–100%	1%
O <sub>2</sub>	0–30% vol	0.1% vol
CO	0–1999 ppm	1 ppm
H <sub>2</sub> S	0–200 ppm	1 ppm

<b>Drop test</b>	6 m
<b>Housing</b>	Rugged rubberised armour
<b>Weight</b>	222 g
<b>Dimensions (H x W x D)</b>	112 x 76 x 35 mm
<b>Audible alarm</b>	>95 dB at 30 cm
<b>Visual alarm</b>	4 ultra-bright LEDs on top and bottom
<b>Vibrating alarm</b>	Standard
<b>MotionAlert &amp; InstantAlert</b>	Standard
<b>Display</b>	High-contrast LCD
<b>Backlight</b>	Adjustable time-out
<b>Battery</b>	Rechargeable li-polymer
<b>Run time</b>	24 hour @ room temperature
<b>Charging time</b>	< 4 hrs
<b>Operating temperature range</b>	–20 °C to +50 °C
<b>Short period operation</b>	–40 °C to +60 °C
<b>Humidity</b>	15–90% RH non-condensing
<b>Ingress protection</b>	IP67
<b>Data log</b>	Standard, 50 hours minimum
<b>Event log</b>	Standard 500 events
<b>Standard warranty</b>	3 years
<b>Extended warranty</b>	Optional 1 year

## Approvals

**ATEX:** II 1G Ex ia IIC T4, –40 °C to +60 °C, IP67 (Zone 0 with no combustible sensor installed)  
 II 2G Ex ia d IIC T4, –40 °C to +60 °C, IP67 (Zone 1 with combustible sensor installed)

## ALTAIR 4X with quick-start card, data logging, charger, calibration cap and tubing

ATEX Approval	Configurations	Housing Color
10110453	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	Charcoal
10110456	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	Phosphorescent
10110454	LEL, O <sub>2</sub> , CO	Charcoal
10110457	LEL, O <sub>2</sub> , CO	Phosphorescent
10110455	LEL, O <sub>2</sub>	Charcoal
10110458	LEL, O <sub>2</sub>	Phosphorescent

ALTAIR 4X can be configured for your individual requirements. Some of the popular configurations are listed above.

## Calibration Gas

10053022 Gas can (58 l) 1.45% CH<sub>4</sub>, 15% O<sub>2</sub>, 60 ppm CO, 20 ppm H<sub>2</sub>S

## Replacement Sensors

10106722	XCell Ex combustible sensor
10106729	XCell O <sub>2</sub> sensor
10106725	XCell CO/H <sub>2</sub> S two-tox sensor
10106724	XCell CO sensor
10106723	XCell H <sub>2</sub> S sensor

## ALTAIR 4 QuickCheck Station

The ALTAIR 4 QuickCheck Station performs bump and function tests in less than one minute, significantly trimming daily required preparation time for large ALTAIR 4X Multi-Gas Detector fleets. Keeps costs down with less up-front hardware expense and calibration gas.

## Europe

10101556	30% tolerance range
10075893	Regulator
10101085	Cylinder holder assembly
10049410	Vehicle charger

## GALAXY Kits

10090001	Standard system, charger
10089966	Smart system (with memory card), charger & cylinder holder

## Accessories

10047596	Universal pump probe (ATEX)
10086638	European power supply
10088099	MSA Link Software CD-ROM
10082834	JetEye IR Adapter with USB connector
10095774	Vehicle charger

## Your direct contact

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