

# ALTAIR<sup>®</sup> 4X

## IT'S WHAT'S INSIDE THAT COUNTS

ALTAIR 4X Multigas Detector  
With MSA XCell™ Sensor Technology



**MSA**  
The Safety Company



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 unit's 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, rubberized housing for secure grip

■ MSA-exclusive feature

# IT'S WHAT'S INSIDE THAT COUNTS

**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 Multigas Detector with XCell Sensor Technology.**

## Built on Durability

The ALTAIR 4X Multigas Detector for LEL, CO, H2S and O2 is as tough and functional as it looks. A rugged housing provides unsurpassed durability, including the ability to survive a 20-foot drop. And with large, glove-friendly buttons and a high-contrast display, the ALTAIR 4X Multigas 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 Multigas Detector comes from new sensor technology. MSA XCell Sensors have a typical life of more than four years, double the industry average, 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, accuracy and repeatability.

MSA XCell Sensors are a breakthrough in chemical and mechanical sensor design, enabling faster response and span 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 4X Detector

Exclusive safety features like MotionAlert™ and InstantAlert™ make the ALTAIR 4X Multigas 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 ALTAIR 4X Multigas Detector outlasts the competition. To prove it, the instrument comes with a full three-year warranty, an entire year longer than the industry average, so you can depend on the ALTAIR 4X Multigas Detector to withstand the wear and tear that other portable gas detectors can't.

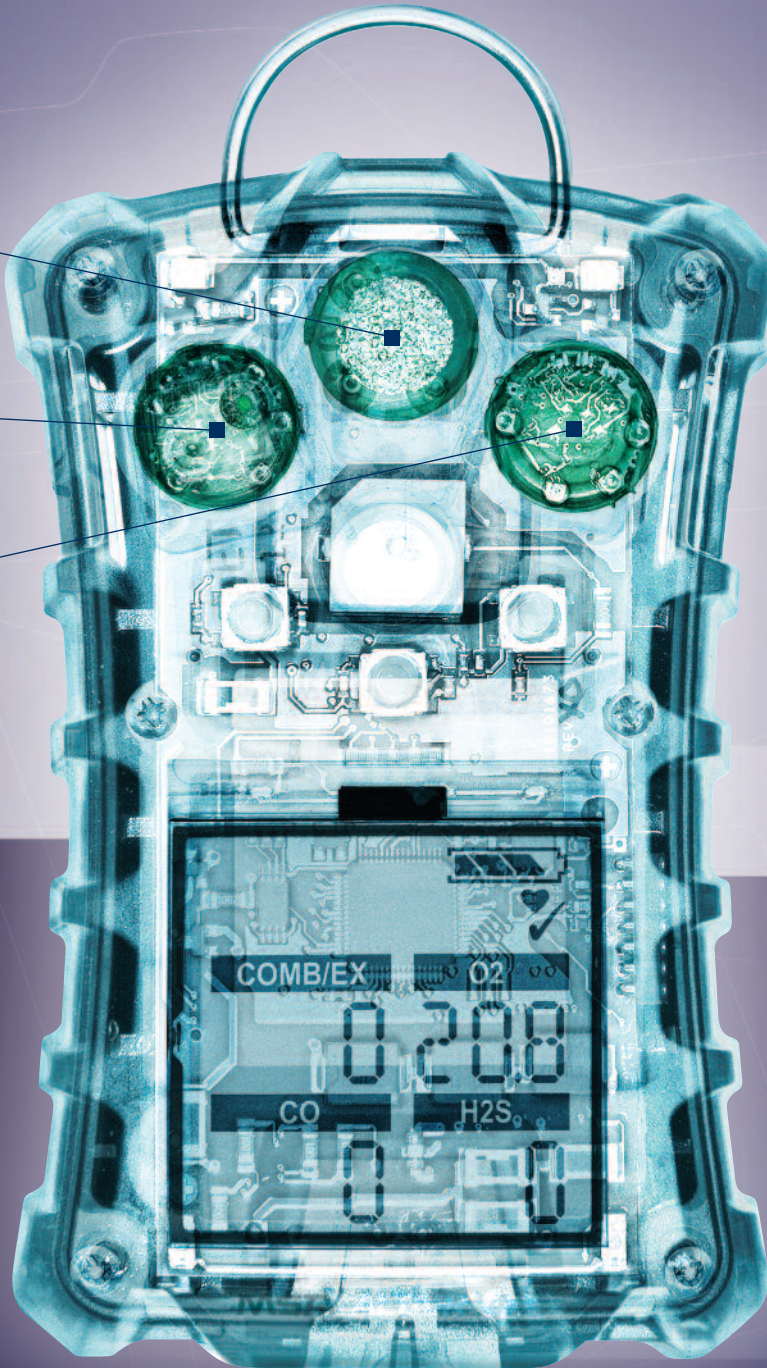
# XCell™

SENSORS

MSA XCell  
Combustible Sensor

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

MSA XCell  
Oxygen Sensor



Adding microelectronics 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 span 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 revolutionizing 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 of 60 seconds
- Greater signal stability and repeatability under changing or extreme environmental conditions
- Two-tox CO/H2S 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 warning gives advanced notice to user, reducing 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 instrument, including the sensors and battery
- Withstands extreme impacts with rugged polycarbonate housing
- Passes 20-foot drop test
- The IP67-rated Altair 4X is both dust tight and water tight

### Applications

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



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

**MSA**

## 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

**Drop test** 20 feet  
**Housing** Rugged rubberized armor

**Weight** 7.9 oz  
**Dimensions (L x W x D)** 4.4 x 3.0 x 1.31

**Audible alarm** >95 dB at 1 ft

**Visual alarm** 4 ultra-bright LEDs on top and bottom

**Vibrating alarm** Standard

**MotionAlert & InstantAlert** Optional

**Display** High Contrast LCD

**Backlight** Adjustable time-out

**Battery** Rechargeable

li-polymer

**Run time** 24 hours

@ room temperature

< 4 hrs

**Charging time**

**Operating temperature range** -20°C to + 50°C

**Short Period Operation** -40 °C to + 60 °C

**Humidity** 15 – 90% RH

non-condensing

**Ingress protection** IP67

**Data log** (Adjustable)

50 hour minimum

**Event log** Standard 500

events

**Standard warranty** 3 years

**Extended warranty** Optional 1 year

## ALTAIR 4X Detector with 3-year warranty, data logging, charger, calibration cap and tubing

### Approvals

U.S./CAN	ATEX	ANZ	Configuration	Case Color
10107602	10110453	10110447	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	Charcoal
10107603	10110456	10110450	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	Phosphorescent
10110443	10110454	10110448	LEL, O <sub>2</sub> , CO	Charcoal
10110445	10110457	10110451	LEL, O <sub>2</sub> , CO	Phosphorescent
10110444	10110455	10110449	LEL, O <sub>2</sub>	Charcoal
10110446	10110458	10110452	LEL, O <sub>2</sub>	Phosphorescent

## ALTAIR 4X Four-gas Detector in black case with calibration cylinder and 0.25 lpm regulator

U.S./CAN Approval	Configuration	Case Color
10110488	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S	Charcoal
10110489	LEL, O <sub>2</sub> , CO, H <sub>2</sub> S with Universal Pump Probe	Charcoal

## Altair 4 Galaxy Automated Test System

### Power Supply

North America	Global	Configuration
10089998	10090001	Standard System
10089996	10090000	Standard System with Charging and Cylinder Holder
10089969	10089970	Smart System (memory card)
10089967	10089966	Smart System (memory card) with Charging and Cylinder Holder

### Calibration Gas

10048280	Gas can (34 l) 1.45% CH <sub>4</sub> , 15% O <sub>2</sub> , 60 ppm CO, 20 ppm H <sub>2</sub> S
10045035	Gas can (54 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

### Accessories

10055576	Universal pump probe (U.S./CAN)
10047594	Universal pump probe (ANZ/IEC)
10047596	Universal pump probe (ATEX)

### Approvals (pending)

#### United States

ETL Class I, Div. 1, Groups A,B,  
C&D Tamb=-40°C to +54°C

ETL Class II, Div.1, Groups E,F&G

Class III, Div. 1 Tamb=-40°C to +54°C; T4

#### Canada

CSA Class I, Div. 1, Groups A,B,C&D

CAN/CSA C22.2 152; 12.13.01-2000

ETL Class II, Div.1, Groups E,F&G

Class III, Div. 1 Tamb=-40°C to +54°C; T4

#### Offices and representatives worldwide

For further information:

#### 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)

#### IEC

Ex ia IIC T4, -40°C to +60°C

(Zone 0 with no combustible sensor installed)

Ex ia d IIC T4, -40°C to +60°C

(Zone 1 with combustible sensor installed)

#### Australia / New Zealand

Ex ia s IIC T4, -40°C to +60°C, IP67 (Zone 0)

For additional customized versions and calibration gases, use MSA's ATO ordering sheet or contact MSA Customer Service at 1-800-MSA-2222.

**Note:** This bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



ID 0802-50-MC / Oct 2010

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