

ALTAIR[®] 5X

**IT'S WHAT'S INSIDE
THAT COUNTS**

ALTAIR 5X Multigas Detector
With MSA XCell[®] Sensor Technology



MSA
The Safety Company

IT'S WHAT'S INSIDE THAT COUNTS

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 rely on. First we introduced MSA's advanced technology with the ALTAIR 4X Multigas Detector with XCell Sensors. Now we're proud to introduce the expansion of the most advanced technology available in any portable gas detector on the market: **the ALTAIR 5X Multigas Detector with XCell Sensor Technology.**

Built on Durability

The ALTAIR 5X Multigas Detector for LEL, O₂, and toxic gas detection is as tough and functional as it looks. A rugged polycarbonate housing provides unsurpassed durability, including the ability to survive a 3 m drop. Inside, a field-proven integral pump provides consistent gas flow without the problems of externally-attached components. Ergonomic design, glove-friendly buttons, and high-contrast display make the ALTAIR 5X Multigas Detector easy to use in all applications.

Powered by Performance

Toughness and durability aren't the whole story. The real strength of the ALTAIR 5X Multigas Detector comes from new sensor technology. MSA XCell Sensors have a typical life of more than 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.

In addition to MSA XCell Sensors, the ALTAIR 5X Multigas Detector can also be equipped with our wide variety of IR sensors covering many gases and ranges including CO₂.

Flexibility to Meet Your Needs

MSA's ALTAIR 5X Multigas Detector provides many options to fit various applications. The detector is configurable with either a high-resolution colour or monochrome LCD display with multilingual capabilities. MSA's Logo Express® Service option is available to customize the colour display. The detector is easily configurable with interchangeable plug-and-play sensor slots for MSA XCell Sensors. Up to six gases can be monitored simultaneously.

Furthermore, this multigas detector offers optional glow-in-the-dark instrument housing for IR sensor-equipped units. The ALTAIR 5X Multigas Detector's lithium-ion battery lasts up to 20 hours, allowing it to be used over multiple shifts. An alkaline battery pack is also available as an accessory. MSA's ALTAIR 5X Multigas Detector is fully compatible with the MSA GALAXY® Automated Test System and MSA Link Software.

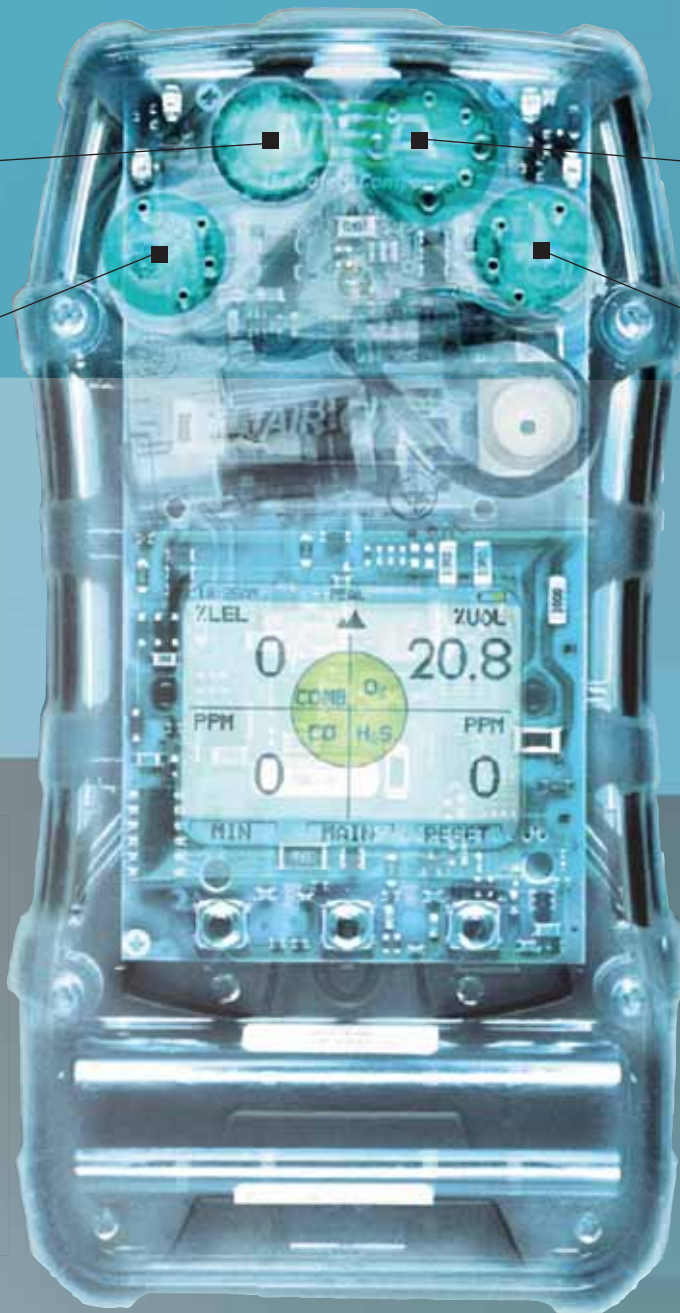


MSA XCell O₂ Sensor

MSA XCell SO₂, Cl₂ or NH₃ Sensor

MSA XCell Ex Sensor, combustible

MSA XCell CO/H₂S 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.

www.msa-europe.com

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.

- New XCell exotic SO₂, Cl₂, and NH₃ Sensors for expanded monitoring applications
- Sensor response and clear times in under 15 seconds for most common sensor configurations
- Bump test in under 15 seconds for most common sensor configurations
- Span calibration time of 60 seconds for most common sensor configurations
- Greater signal stability and repeatability under changing or extreme environmental conditions
- All XCell Sensors are capable of plug-and-play capabilities for easy reconfiguration

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

- Typical life greater than four years for combustible, O₂, CO/H₂S, and SO₂ sensors
- Typical life greater than three years for NH₃, and Cl₂ sensors
- Combustible sensor proprietary operating mode 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

Three-year back-to-back instrument warranty includes CO/H₂S/O₂/LEL/SO₂ and IR sensors

Two-year warranty on NH₃ and Cl₂; minimum 12-month warranty on other sensors

ALTAIR® 5X

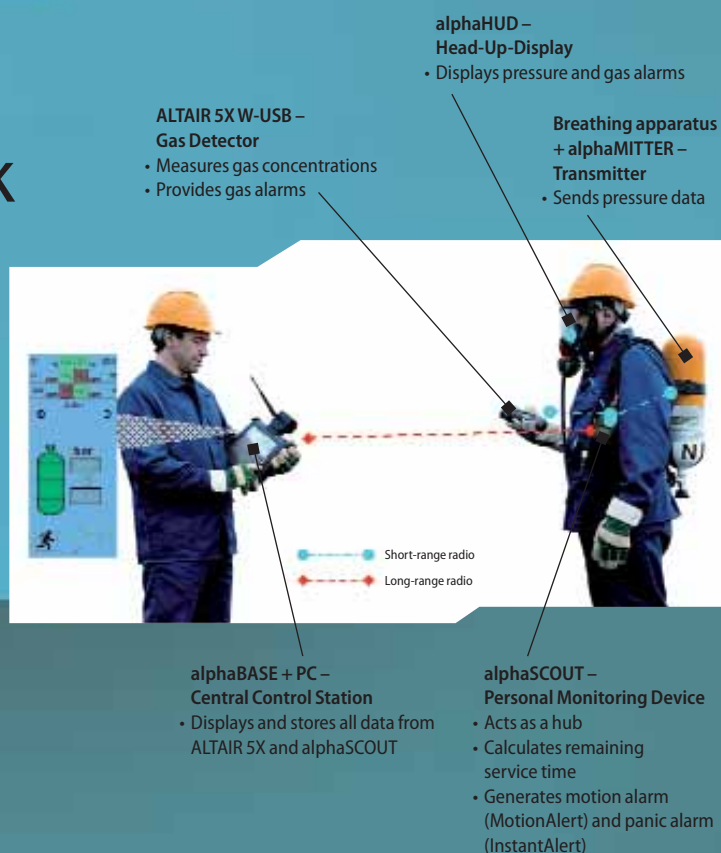
In connection with alpha Personal Network

The Wireless USB option enables the integration of ALTAIR 5X into the alpha Personal Network. This monitoring and alarm system consists of modular and wireless components that can be individually integrated to enhance your operation's safety and capability as needed. The ALTAIR 5X W-USB can monitor operative personnel using breathing apparatus and portable gas detection equipment while sending information to the central control station alphaBASE. All gas readings and alarms can be seen by incident command monitoring personnel in real time.

Full monitoring:

alpha Personal Network system can be used in several combinations for a wide variety of applications, for example when you work alone on large or complex sites, when you need to work under chemical suits, or when you want to keep an eye on all your crew members, including full telemetric monitoring of gas alarms, pressure and motion for breathing apparatus and chemical protection suits wearers.

For more information please see alpha Personal Network leaflet 01-050.2.



Fully compatible with MSA Link Software and MSA GALAXY Automated Test System

Variety of optional MSA infrared sensors

Robust integral pump for consistent flow

High contrast colour or monochrome display

18 language options

Large buttons for easy operation

Wireless USB option for connectivity to alpha Personal Network (Selected locations)

High performance MSA XCell Sensors

24-hour bump checkmark

End of XCell Sensor life warning

Advanced MotionAlert and InstantAlert Safety Features

Durable, rubberized housing for secure grip



■ MSA-exclusive feature

Technical Specifications

Gas type	Range	Resolution
Combustible, COMB	0–100%	1% LEL
Oxygen, O ₂	0–30% Vol	0.1% Vol
Carbon monoxide, CO	0–2000 ppm	1 ppm
Hydrogen sulfide, H ₂ S	0–200 ppm	1 ppm
Sulfur dioxide, SO ₂	0–20 ppm	0.1 ppm
Chlorine, Cl ₂	0–20 ppm	0.1 ppm
Ammonia, NH ₃	0–100 ppm	1 ppm
Nitrogen dioxide, NO ₂	0–20 ppm	0.5 ppm
Chlorine dioxide, ClO ₂	0–1 ppm	0.01 ppm
Phosphine, PH ₃	0–5 ppm	0.1 ppm
Hydrogen cyanide, HCN	0–30 ppm	0.1 ppm
Carbon dioxide, CO ₂	0–10% Vol	0.01% Vol
Butane, C ₄ H ₁₀	0–25% Vol	0.1% Vol
Methane, CH ₄	0–100% Vol	1% Vol
Propane, C ₃ H ₈	0–100% Vol	1% Vol

Drop test	3 m
Housing	Rugged rubberized armor
Weight	453 g or 680 g (IR version)
Dimensions (L x W x D)	16.9 x 8.9 x 4.2 cm (5.0 cm for IR version) without belt clip
Audible alarm	>95 dB typical
Visual alarm	2 ultra-bright LEDs on top
Vibrating alarm	Standard
MotionAlert & InstantAlert	Standard
Display	High-contrast monochrome or colour display
Backlight	Adjustable time-out
Battery	Rechargeable lithium-ion battery and optional Alkaline (non-IR equipped units)
Run time	>18 hours run time (IR = 14 hrs) @ room temperature
Charging time	≤ 6 hours
Operating temperature	0 to 40 °C
Extended temperature	–20 to 50 °C
Short-period operation	–40 C to +50 °C
Humidity	15–90% RH non-condensing
Ingress protection	IP65
Data log	(Adjustable) average of 200 hours (at 1-minute intervals)
Event log	Standard 1000 events
Standard warranty	3-year including CO/H ₂ S/LEL/O ₂ /SO ₂ /IR sensors. NH ₃ and Cl ₂ : 2 years. Other sensors: 1 year

For additional customized versions and calibration gases, use MSA's ATO ordering sheet or contact your MSA Customer Service.

ALTAIR 5X Multi-gas Detector with 3-year warranty, data logging, charger, integral pump, and tubing

Part Number	Configuration
10119600	(LEL [Pen], O ₂ , CO, H ₂ S) Monochrome
10119614	(LEL [Pen], O ₂ , CO, H ₂ S) Colour
10119649	(LEL [Pen], O ₂ , CO, H ₂ S) Colour, Wireless USB
10119616	(LEL [Pen], O ₂ , CO, H ₂ S, SO ₂) Colour
10119615	IR (LEL [Pen], O ₂ , CO, H ₂ S, 0–10% CO ₂) Colour

Other configurations available on request

ALTAIR 5X Multi-gas Detector Industrial Kits – integral pump, 3 m sampling line, and 30 cm probe

10120567	(LEL [Pen], O ₂ , CO, H ₂ S) Monochrome
10120568	(LEL [Pen], O ₂ , CO, H ₂ S) Colour
10120569	IR (LEL [Pen], O ₂ , CO, H ₂ S, 0–10% CO ₂) Colour

ALTAIR 5X GALAXY Automated Test System

10090605	Standard system with charging capability and cylinder holder
10090591	Smart system (memory card) with charging and cylinder holder

Calibration Gas

10053022	Gas can (58 l) (1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S)
10102853	Gas can (58 l) (1.45% CH ₄ , 15.0% O ₂ , 60 ppm CO, 20 ppm H ₂ S, 2.5% CO ₂)
10011938	Gas can (34 l) 5 ppm SO ₂ in N ₂

Other calibration gases available on request

Replacement Sensors

10106722	XCell Combustible Sensor	10062209	IR Carbon dioxide, CO ₂ 0–10% Vol Sensor
10080222	Chlorine dioxide Sensor	10106727	XCell Sulfur dioxide Sensor
10106729	XCell Oxygen Sensor	10062201	IR Butane, C ₄ H ₁₀ 0–25% Vol Sensor
10116638	Phosphine Sensor	10106728	XCell Chlorine Sensor
10106724	XCell Carbon monoxide Sensor	10062205	IR Methane, CH ₄ 0–100% Vol Sensor
10106375	Hydrogen cyanide Sensor	10106726	XCell Ammonia Sensor
10106723	XCell Hydrogen sulfide Sensor	10062207	IR Propane, C ₃ H ₈ 0–100% Vol Sensor
10080224	Nitrogen dioxide Sensor		

Accessories

10099648	Leather holster	10082834	JetEye IR Adapter w/ USB Connector
10103189	Sampling line, 3 m, PU conductive	478359	Pressure reduction valve 0.25 l/min
10103191	Sampling probe, flexible 30 cm	10088099	MSA Link Software CD-ROM

Approvals

ATEX Directive 94/9/EC

ALTAIR 5X Multigas Detector:

II 2G Ex d ia mb IIC Gb IP65 – Zone 1 when
XCell Ex sensor is installed.

II 1G Ex ia IIC Ga IP65 – Zone 0 when XCell
Ex Sensor is not installed.

ALTAIR 5X Multigas Detector with rechargeable
battery pack T4

I M1 Ex ia I Ma

ALTAIR 5X IR Multigas Detector II 2G Ex d e ia mb
IIC T4 Gb IP65

CE 0080

Directive 2004/108/EEC (EMC): EN 50270 Type 2,
EN 61000-6-3

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