



Portables Gas Detectors

International Product Range Overview



WE KNOW WHAT'S AT STAKE.

Over 110 years of experience and capability in comprehensive safety solutions have made MSA Safety a modern and forward-looking company providing innovative solutions that help protect people, facilities, and the environment. MSA Safety, is making significant strides in the portable gas detector market, offering advanced, reliable, and user-friendly devices that help to provide a high level of protection in hazardous environments. We create solutions that not only help to keep worker's safe and to protect facilities, but also decrease overall cost of ownership.

ALTAIR®: Maintenance-free Single Gas Detector	4
ALTAIR® PRO: Durable Single Gas Detector	4
ALTAIR® 2X: Single Gas & Two-Gas Detector powered by MSA XCell Sensors	5
ALTAIR® 4XR: MSA Safety's most robust Multigas Detector powered by MSA XCell ® Sensors	5
ALTAIR® 5X: Versatile pumped Multigas Detector with IR and PID detection capabilities	6
Altair io®4: Connected Gas Detector with seamless MSA Grid link	7
GALAXY® GX2: Automated Test System	8
ALTAIR io™ Dock: Stand-alone, connected Automated Test System	8



Industry	Gases/Hazards													VOCs
	Combustible Gases	O ₂ Deficiency/Enrichment	Ammonia	Carbon Dioxide	Carbon Monoxide	Chlorine	Chlorine Dioxide	Hydrogen Cyanide	Hydrogen Sulfide	Nitric Oxide	Nitrogen Dioxide	Phosphine	Sulfur Dioxide	
AGRICULTURE	■	■	■	■	■				■	■	■	■		
AVIATION	■	■			■									■
CHEMICAL	■	■	■		■	■		■	■				■	■
CONSTRUCTION	■	■			■				■					■
FIRE SERVICE	■	■		■	■	■		■	■					■
FOOD & BEVERAGE PROCESSING		■	■	■	■				■			■		■
FOUNDRIES	■	■			■				■				■	■
HEAVY MANUFACTURING	■				■									■
IRON & STEEL	■	■			■			■	■	■	■		■	■
MINING	■	■		■	■			■	■	■	■			
OIL & GAS/PETROCHEMICAL	■	■	■		■				■					■
PAPER & PULP						■	■		■				■	■
PHARMACEUTICAL	■	■	■			■			■				■	■
POWER PLANTS	■	■	■	■	■				■	■	■		■	■
SEMICONDUCTOR			■			■				■	■	■		■
SHIPYARD/MARINE	■	■		■	■				■					■
WATER & WASTEWATER TREATMENT	■	■	■	■	■	■			■				■	■
WELDING	■	■			■					■	■			

Monitoring Categories		
COMBUSTIBLE GASES	TOXIC GASES	OXYGEN (O ₂)
Acetone (C ₃ H ₆ O)	Hydrogen (H ₂)	Volatile Organic Compounds (VOCs)
Benzene (C ₆ H ₆)	Isobutane (C ₄ H ₁₀)	
Butane (C ₄ H ₁₀)	Methane (CH ₄)	
Ethylene (C ₂ H ₄)	Pentane (C ₅ H ₁₂)	
Heptane (C ₇ H ₁₆)	Toluene (C ₇ H ₈)	
Hexane (C ₆ H ₁₄)	Propane (C ₃ H ₈)	
	Ammonia (NH ₃)	Hydrogen sulfide (H ₂ S)
	Carbon dioxide (CO ₂)	Nitric oxide (NO)
	Carbon monoxide (CO)	Nitrogen dioxide (NO ₂)
	Chlorine (Cl ₂)	Phosphine (PH ₃)
	Chlorine dioxide (ClO ₂)	Sulfur dioxide (SO ₂)
	Hydrogen cyanide (HCN)	

ALTAIR® – Maintenance-free Single Gas Detector

Designed for excellent lifespan—patented sensors can operate for over two years—and high performance, the ALTAIR Single-Gas Detector is a smart choice for market-leading, cost-effective gas monitors. Outstanding dust/water protection, high RFI resistance, and one-button operation coupled with LED/audible/vibrating alarms, contributes to increased durability and ease-of-use.

It provides up to two years or 1080 alarm minutes of service life under warranty with no maintenance. This instrument is designed to remain active after two years of operation and will continue to perform as long as battery capacity and sensor allow. Bump check confirmation is provided by a checkmark on instrument LCD, displayed for 24 hours.

Configurations available for detecting: CO, H₂S, O₂



ALTAIR single gas most popular configurations:

Part numbers	Product details
10071361	ALTAIR Single-Gas Detector, H ₂ S, Low 5 & High 10, Charcoal case
10092521	ALTAIR Single-Gas Detector, H ₂ S, Low 10, High 15, Charcoal case
10092523	ALTAIR Single-Gas Detector, O ₂ , Low 19.5%, High 23%, Charcoal case
10071337	ALTAIR Single-Gas Detector, CO, Low 50, High 200, Charcoal case
10071334	ALTAIR Single-Gas Detector, CO, Low 30, High 60, Charcoal case
10071364	ALTAIR Single-Gas Detector, O ₂ , Low 19.5%, High 18.0%, Charcoal case
10092522	ALTAIR Single-Gas Detector, CO, Low 25, High 100, Charcoal case

For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

ALTAIR® PRO: Durable Single Gas Detector

Based on the ALTAIR Single-Gas Detector—but with added features and functionality—the ALTAIR Pro gas detector is equipped with electrochemical sensors to measure concentrations of toxic gas or percent oxygen and combines reliable detection and LED/audible/flashing/vibrating alarms with clear, backlit LCD displays. Purpose-built for excellent dust and water protection, excellent impact resistance, and excellent RFI performance. Battery and sensors are replaceable to extend usage period. Bump check confirmation is provided by a checkmark on instrument LCD, displayed for 24 hours.

Configurations available for detecting: ClO₂, HCN, PH₃, O₂



Altair Pro most popular configurations:

Part numbers	Product details
10074137	ALTAIR Pro Single-Gas Detector, O ₂ , Low 19.50%, High 23.00%, Charcoal case
10076735	ALTAIR Pro Single-Gas Detector, PH ₃ , Low 0.3, High 1, Charcoal case
10076729	ALTAIR Pro Single-Gas Detector, HCN, Low 4.8, High 10, Charcoal case
10076732	ALTAIR Pro Single-Gas Detector, O ₂ , Low 18.00%, High 19.50%, Charcoal case
10076717	ALTAIR PRO, ClO ₂ , 0.1/0.3 ppm, Charcoal case

For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

ALTAIR® 2X Single Gas and Two-Gas Detectors powered by MSA XCell® Sensors

All ALTAIR 2X Gas Detectors incorporate proven MSA XCell Sensor Technology, helping to enhance worker safety, minimize cost of ownership and demonstrate rugged durability. Easy compliance and traceability in robust design that withstands multiple 7,5 m drops onto concrete.

ALTAIR 2XP: First stand-alone bump test in the world – bump anytime, anywhere, without calibration gas thanks to patented XCell Pulse Technology. Reduce maintenance, increase productivity, and provide an opportunity for a user to work safely.

ALTAIR 2XT: Monitor 2 gases with 1 device thanks to exclusive MSA XCell Two-Tox Sensor Technology.

Configurations available for detecting:

CO (also in H₂ Resistant and High Concentration variants), H₂S (also in low concentration variant), SO₂, Cl₂, NH₃, NO₂



Altair 2X most popular configurations:

Part numbers	Product details
10162042	ALTAIR 2X Detector, H ₂ S Standard, Gray case
10157965	ALTAIR 2X Gas Detector, CO, Low 30, High 60, Gray case
10153986	ALTAIR 2X Gas Detector, CO, Low alarm 25, High Alarm 100, Charcoal case
10154079	ALTAIR 2X, NH ₃ (25, 50), Charcoal
10153984	ALTAIR 2XP H ₂ S-Pulse [10,15], Charcoal
10154077	ALTAIR 2X, SO ₂ (2, 5), Charcoal
10154080	ALTAIR 2X, Cl ₂ (0.5, 1), Charcoal
10153985	ALTAIR 2XT, SO ₂ /H ₂ S-LC (SO ₂ : 2, 5; H ₂ S: 10, 15), Charcoal

For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

ALTAIR® 4XR: MSA Safety's most robust Multigas Detector powered by MSA XCell® Sensors

Outfitted with rapid-response MSA XCell® sensors, the ALTAIR 4XR Gas Detector is one of the toughest 4-gas monitors on the market (MIL-STD-810G 516.6 Transit Drop 3rd Party Certified) and is backed by a 4-year warranty. The ALTAIR 4XR is a reliable Multigas Detector that can simultaneously measure up to four gases from a wide range of sensor options. With large, glove-friendly buttons and a high-contrast display, the ALTAIR 4XR is easy to operate in nearly all work environments, even low-light conditions. Includes MotionAlert™ & InstantAlert™ Alarms, End-of-sensor-life warning & alarm which can contribute to increased user safety. A full range of accessories is available, including: ALTAIR Pump Probe allowing to convert ALTAIR 4XR into a pump instrument for your sampling applications.

Configurations available for detecting:

Combustible gases (LEL and CH₄, also in Ex-M and Ex-H variants), O₂, CO (also in H₂ Resistant variant), H₂S (also in low concentration variant), SO₂ and NO₂



Altair 4XR most popular configurations:

Part numbers	Product details
10178573	ALTAIR 4XR Multigas Detector, LEL, O ₂ , H ₂ S & CO. Charcoal Case. European Charger
10211185	ALTAIR 4XR Multigas Detector, LEL, O ₂ , H ₂ S & CO. Charcoal Case. UK EH40 Compliant
10178570	ALTAIR 4XR Multigas Detector: Methane 0-100% LEL, O ₂ , H ₂ S & CO. Charcoal case. European charger.
10228005	ALTAIR 4XR Multigas Detector: Methane 0-100% LEL, 5 Vol.%, O ₂ , H ₂ S & CO. Charcoal case. European charger.
10178560	ALTAIR 4XR Multigas Detector, LEL, O ₂ , H ₂ S & CO. Charcoal Case. Global Charger. CSA Approval
A-ALT4XR	Configure Your own Device using configuration matrix

For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

ALTAIR® 5X: Versatile pumped Multigas Detector with IR and PID detection capabilities

The ALTAIR 5X Gas Detector is capable of measuring up to 6 gases simultaneously and is available with integrated IR or PID sensor for VOC detection. Driven by advanced MSA XCell® Sensor Technology, the ALTAIR 5X Gas Detector delivers fast response times, stability, accuracy, long service life, and cost savings over the life of the instrument and it's an outstanding solution for sampling applications. Internal integral pump is designed with a recessed inlet to improve durability and reduce snag hazards. MotionAlert™ & InstantAlert™ Alarms, End-of-sensor-life warning & alarm which can contribute to increased user safety.

Configurations available for detecting:

Combustible gases (LEL and CH₄, also in Ex-M and Ex-H variants, Hydrocarbons - IR), O₂, CO (also in H₂ Resistant variant), CO₂ (IR), H₂S (also in low concentration variant), SO₂, NO₂, NH₃, Cl₂, ClO₂, HCN, NO, VOC (PID)



ALTAIR 5X most popular configurations:

Part numbers	Product details
10116928	ALTAIR 5X Detector Color (LEL,O ₂ ,CO,H ₂ S), (UL), Charcoal, Deluxe, Color Display, 10' Line, 1' Probe
10116926	ALTAIR 5X Detector Mono (LEL,O ₂ ,CO,H ₂ S), (UL), Charcoal, Standard, Monochrome Display, 10' Line, 1' Probe
A-ALT5X	Configure Your own Device using configuration matrix
10119600	ALTAIR 5X Multigas Detector, LEL (Pen), (ATEX) O ₂ , CO, H ₂ S, Monochrome
10119621	ALTAIR 5X Multigas Detector Mono, (ATEX) Methane 0-100% LEL, O ₂ , H ₂ S & CO, IR 0-25% VOL BUTANE
10166730	ALTAIR 5X Multigas Detector Color, (ATEX) LEL, O ₂ , H ₂ S & CO, PID 10.6eV

For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

ALTAIR® io4 Connected Gas Detector Wearable, with seamless MSA Grid link

Help support worker safety and connectivity with the ALTAIR io 4 portable gas detector. The ALTAIR io4 is a secure, smart gas detector with out-of-the-box connectivity packed into an ultra-rugged design - featuring our XCell sensor platform which continues to lead the industry in lifetime & durability. The ALTAIR io 4 was designed from the ground-up to work seamlessly with the MSA Grid and the ALTAIR io® Dock, helping to provide hassle-free compliance, effortless fleet management & incredible visibility into your workers' safety.

Configurations available for detecting:

Combustible gases (LEL and CH₄), O₂, CO (also in H₂ Resistant variant), H₂S (also in low concentration variant).
SO₂ and NO₂ sensors coming soon



ALTAIR io4 most popular configurations:

Part numbers	Product details
10221854	ALTAIR io 4 NA/IEC/ATEX, Global AT&T Coverage, General Combustible 0-100% LEL, O ₂ Std., CO Std., H ₂ S Std., NA/EU/UK Charger, Subscription
10221855	ALTAIR io™ 4 NA/IEC/ATEX, Global AT&T Coverage, General Combustible 0-100% LEL, O ₂ Std., CO, H ₂ S-Low Concentration Std., NA/EU/UK Charger, Subscription
10221857	ALTAIR io™ 4 NA/IEC/ATEX, Global AT&T Coverage, General Combustible 0-100% LEL, O ₂ Std., CO H ₂ -Resistant, H ₂ S Std., NA/EU/UK Charger, Subscription
10245597	ALTAIR io™ 4 Gas Detector NA/IEC/ATEX, LTE-M/2G Global (Excluding USA), General Combustible 0-100% LEL, O ₂ Std., CO Std., H ₂ S Std., NA/EU/UK Charger, Starter Purchase
10249320	ALTAIR io™ 4 Gas Detector NA/IEC/ATEX, LTE-M/2G Global (Excluding USA), General Combustible 0-100% LEL, O ₂ Std., CO H ₂ -Resistant, H ₂ S Std., NA/EU/UK Charger, Starter Purchase
10248195	ALTAIR io™ 4 Gas Detector NA/IEC/ATEX, LTE-M/2G Global (Excluding USA), General Combustible 0-100% LEL, O ₂ Std., CO Std., H ₂ S Low-Concentration, NA/EU/UK Charger, Starter Purchase

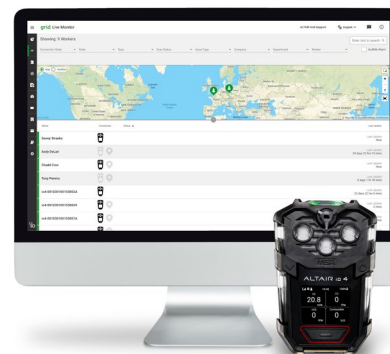
For the complete list of variants and configurations visit msasafety.com website or contact our Customer Service team.

MSA Grid

Help drive safety improvements and accountability with a connected gas detection program.

Grid Fleet Manager is a web-based service to streamline your gas detection fleet management. It helps you regain control of your detection program so you can shift your focus to your broader safety goals. The MSA Grid Fleet Manager helps you to maximize gas detector uptime, document alarm activity, drive worker accountability and be proactive towards your safety program. The Grid Fleet Manager is designed to work with the GALAXY® GX2 and ALTAIR io® Dock automated test systems as well as with any detector in the ALTAIR family.

The MSA Grid Live Monitor is a remote monitoring tool for portable gas detectors. With the MSA Grid live monitor cloud-base software you can have real-time visibility across your workers and worksites. Worker location awareness, full event live monitoring including gas reading and worker evacuation alerts and much more! The Grid Live Monitor is designed to work with the ALTAIR io4 detector and ALTAIR io Dock automated test system.



Automated test stations: GALAXY® GX2 and ALTAIR io™ Dock

GALAXY® GX2

MSA's Galaxy GX2 Test System provides automated calibration across most of the MSA ALTAIR gas detector fleet.

Simplicity counts with the MSA GALAXY® GX2 Automated Test System for advanced safety management and effortless operation. The GALAXY GX2 Automated Test System provides simple, intelligent testing and calibration of ALTAIR single gas, ALTAIR Pro, ALTAIR 2X Single-Gas Detectors as well as ALTAIR 4XR and ALTAIR 5X Multigas Detectors. Easy-to-use automated test stand offers high performance as either stand-alone unit or integrated portable detector management system, helping to enable total data access and control of the supported ALTAIR gas detectors.



ALTAIR io™ Dock

Ensure your workforce has access to some of the latest in safety technology with the ALTAIR io Dock for the ALTAIR io 4.

The ALTAIR io Dock enables effortless calibration and bump testing which helps to improve compliance and safety. When in the ALTAIR io Dock, the Altaire io 4 portable gas detector knows when it needs a bump test and can immediately run the appropriate test. When the ALTAIR io 4 is in the ALTAIR io Dock, all compliance reporting can be immediately sent to your MSA Grid account, helping to minimize the risks associated with manual record keeping or data file management.



Why is bump testing your portable gas detector important for safety?

Portable gas detection may be an important part of a workers' safety equipment for certain environments and jobs. However, the accuracy and function of portable gas detectors can be reduced, impeded, or otherwise impacted over time, which could affect the instrument's ability to reliably warn and help protect against gas hazards. For example, environmental influences and harsh application conditions can affect the functionality of gas detectors. Those affects can be gradual over time or they can be more sudden. Also, those affects can sometimes be reversed and are sometimes permanent.

What is a bump test? A qualitative function check that can help confirm that: gas can get to the sensor(s) and the sensor responds appropriately. It is a functional check, not an accuracy check. A bump test can help to identify a sensor blockage, failure, or non-compliance check TODAY. Bump testing before each day's use is generally a recommended, and sometimes required, safety practice to help verify proper instrument operation.

What is calibration? The adjustment of the sensor(s) output to match the known traceable calibration gas concentration. It can be performed if high accuracy is desired and also if a bump test fails. Calibration can be important since most sensors on the market can have some amount of drift over time and may be subject to potential uncontrollable effects such as over-exposures, poisoning, physical shocks, extreme environmental changes etc.



MSA XCell® sensors

MSA XCell Sensors are a breakthrough in sensor design, enabling fast response and short span calibrations, saving you time and money. ASIC (application-specific integrated circuit) technology inside of each sensor provides outstanding control and high performance.

Every XCell Sensor is built by MSA with a proprietary embedded ASIC microchip that drives the sensor and converts its output to a digital signal. This microchip is much more than a digital sensor; XCell Sensors perform real-time environmental corrections, provide plug-and-play capabilities and deliver great RF immunity with high overall performance.

MSA XCell Sensors have a typical life of more than four years*, double the industry average. By miniaturizing sensor control electronics and placing them inside of the sensor itself, MSA XCell Sensors offer outstanding response time, stability, accuracy, and reliability. With less time spent on calibration and bump tests, you can save on calibration gas, maintenance costs and in turn, save money.

*Refers to most standard XCell Sensors. Specific exotic gas and special application sensors have shorter expected lives. Please refer to www.MSASafety.com for additional information.



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>.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit [MSAsafety.com/offices](https://www.msasafety.com/offices).