

**Ribble Enviro**  
*...everything gas detection*

# Data Sheet

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# ALTAIR® 5X Multigas Detector

With MSA XCell® Sensor Technology



WE KNOW WHAT'S AT STAKE.

## Save Time, Save Money, Save Lives

**Building upon decades of sensor design experience, MSA has revolutionized sensor technology with design breakthroughs that improve performance.**

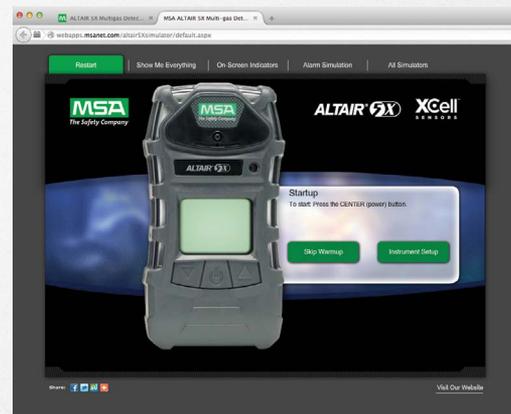
- XCell exotic SO<sub>2</sub>, NO<sub>2</sub>, Cl<sub>2</sub>, and NH<sub>3</sub> Sensors for expanded monitoring applications
- Sensor response and clear times in less than 15 seconds for most common sensor configurations
- Bump test in less than 15 seconds for most common sensor configurations
- Span 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 installation 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, O<sub>2</sub>, CO/H<sub>2</sub>S, NO<sub>2</sub>, and SO<sub>2</sub> sensors
- Typical life greater than three years for NH<sub>3</sub> and Cl<sub>2</sub> sensors
- Combustible sensor proprietary operating mode helps maintain poison-resistance throughout sensor life
- End-of-sensor-life warning gives advanced notice to user, reducing service outages

Three-year back-to-back instrument warranty includes CO/H<sub>2</sub>S/O<sub>2</sub>/LEL/SO<sub>2</sub>, NO<sub>2</sub> XCell and IR Sensors.

Two-year warranty on NH<sub>3</sub> and Cl<sub>2</sub>; minimum 12-month warranty on other sensors.



### Count on the ALTAIR 5X Multigas Detector

Exclusive MotionAlert™ and InstantAlert™ features make the ALTAIR 5X Multigas Detector ideal for applications such as confined space monitoring. MotionAlert feature activates when a user becomes disabled and motionless, quickly alerting others as to the disabled user's location. And with a simple push of a button, InstantAlert feature enables users to manually warn others of potentially hazardous situations.

The ALTAIR 5X Detector is the long-life leader. To prove it, the instrument comes with a full three-year warranty,\* an entire year longer than the industry average, so that you can depend upon the ALTAIR 5X Detector to withstand the punishment that other portable gas detectors can't.

### Online Training & Product Simulation

MSA's online training and Web content include the ALTAIR 5X Multigas Detector simulator that takes viewers through instrument operation. This tool is found at [www.MSAsafety.com/ALTAIR5X](http://www.MSAsafety.com/ALTAIR5X).

MSA-U® Training Center is a feature-rich online training center that offers specific care and use training for the ALTAIR 5X Detector. Detailed training reports are available for managers, while an end-of-course quiz ensures effective training with feedback on incorrect test answers. Visit [www.MSAsafety.com/training/msa-u](http://www.MSAsafety.com/training/msa-u).

# It's What's Inside That Counts

Workers who face potentially hazardous situations deserve the best protection available. At MSA, we work tirelessly to build smarter, better gas detection instruments upon which people of the world rely. First we introduced MSA's advanced technology with the ALTAIR 4X Multigas Detector with XCell Sensors. Now we're proud to offer the most advanced sensor technology available in a six-gas portable instrument:

**the ALTAIR 5X Multigas Detector with XCell Sensor Technology and PID option.**



## Built Upon Durability

The ALTAIR 5X Multigas Detector for LEL, O<sub>2</sub>, and toxic gas detection is as tough and functional as it looks. A rugged, rubberized polycarbonate housing provides unsurpassed durability, including the ability to survive a 10-ft. (3 m) drop. Inside, a field-proven integral pump provides consistent gas flow without the concerns of externally-attached components. Ergonomic design, glove-friendly buttons and high-contrast display make the ALTAIR 5X Multigas Detector easy to use for all applications.



## Powered by Performance

Toughness and durability are only part of the story. The real strength of the ALTAIR 5X Multigas Detector comes from state-of-the-art sensor technology. By miniaturizing sensor-controlling electronics and placing them inside the sensor itself, MSA XCell Sensors offer superior stability, accuracy, repeatability, and a typical life of more than double the industry average.

MSA XCell Sensors are a breakthrough in chemical and mechanical sensor design, enabling faster response and span calibration times, saving you time, calibration gas, maintenance costs, and in turn, money. But most importantly, saving seconds in response time can also mean saving lives.

In addition to MSA XCell Sensors, the ALTAIR 5X Detector can be equipped with advanced PID options for VOC detection. Our wide variety of IR sensors covers many gases and ranges including CO<sub>2</sub>.



## Flexibility & Connectivity to Meet Your Needs

MSA's ALTAIR 5X Multigas Detector is configurable with either high-resolution color or monochrome LCD display with 18 built-in languages. MSA's Logo Express® Service is available to customize the color display. Interchangeable plug-and-play slots for MSA XCell Sensors indicated means that up to six gases can be monitored simultaneously.

The ALTAIR 5X Detector is fully compatible with the MSA GALAXY® GX2 Automated Test System and the MSA Grid to efficiently manage your entire fleet.



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.

## ALTAIR 5X Multigas Detector Features



Fully compatible with GALAXY® GX2 Automated Test System

Variety of optional MSA infrared sensors

Robust integral pump for consistent flow and improved durability

Advanced optional VOC detection

18 language options

Large buttons for easy operation

Advanced MotionAlert and InstantAlert features

High-performance MSA XCell Sensors

24-hour bump checkmark

High-contrast color or monochrome display

XCell Sensor end-of-life indicator

Durable, rubberized housing for secure grip

 MSA-exclusive feature

## Complete Solutions

The ALTAIR 5X Multigas Detector with advanced PID (photoionization) sensor option sets the gas detection bar even higher to meet evolving and diverse needs for VOC detection. PIDs are required tools not only for industrial hygiene, HazMat, and specialized detection applications, but are increasingly a key element for safety teams and industrial operations. The unmatched durability of the ALTAIR 5X Detector with advanced XCell Sensor technology is now combined with PID to provide a complete platform for users around the world. What's more, PID instrument data can now seamlessly integrate into MSA's proven fleet management infrastructure.



## Technical Specifications

Specifications	
<b>DROP TEST</b>	10 ft. (3 m)
<b>HOUSING</b>	Rugged rubberized armor
<b>WEIGHT</b>	453 g (without belt clip, PID, or IR sensor)
<b>DIMENSIONS (H x W x D)</b>	16.9 x 8.9 x 4.2 cm without belt clip, PID, or IR sensor
<b>AUDIBLE ALARM</b>	>95 dB typical
<b>VISUAL ALARM</b>	2 ultra-bright LEDs, on top
<b>VIBRATING ALARM</b>	Standard
<b>MotionAlert &amp; InstantAlert</b>	Standard
<b>DISPLAY</b>	High-contrast monochrome or color display. PID version available with color display only
<b>BACKLIGHT</b>	Adjustable time-out
<b>BATTERY</b>	Rechargeable Li-ION or AA alkaline
<b>RUN TIME</b>	>20 hours run time @ room temperature
<b>INGRESS PROTECTION</b>	IP65
<b>STANDARD WARRANTY</b>	3-year including LEL/O <sub>2</sub> /CO/H <sub>2</sub> S/NO <sub>2</sub> /SO <sub>2</sub> XCell Sensors and IR Sensors; 2-year including NH <sub>3</sub> and Cl <sub>2</sub> XCell Sensors, other sensors: 1 year
<b>HUMIDITY</b>	15–90 % RH non-condensing
<b>CHARGING TIME</b>	<= 6 hours
<b>DATA LOG</b>	(Adjustable) average of 200 hours (at 1-minute intervals)
<b>EVENT LOG</b>	Standard 1000 events

Gas Type	Range	Resolution
COMBUSTIBLE	0-100 % LEL	1 % LEL
COMBUSTIBLE	0-5 % Vol, CH <sub>4</sub>	0.05 % Vol CH <sub>4</sub>
OXYGEN, O <sub>2</sub>	0-30 % Vol	0.1 % Vol
CARBON MONOXIDE, CO	0-2000 ppm	1 ppm
CO H <sub>2</sub> - RESISTANT	0-2000 ppm	1 ppm
CO-HIGH CONCENTRATION	0-10,000 ppm	5 ppm
HYDROGEN SULFIDE, H <sub>2</sub> S	0-200 ppm	1 ppm
H <sub>2</sub> S-LOW CONCENTRATION	0-100 ppm	0.1 ppm
SULFUR DIOXIDE, SO <sub>2</sub>	0-20 ppm	0.1 ppm
NITROGEN DIOXIDE, NO <sub>2</sub>	0-50 ppm	0.1 ppm
CHLORINE, CL <sub>2</sub>	0-10 ppm	0.05 ppm
AMMONIA, NH <sub>3</sub>	0-100 ppm	1 ppm
NITROGEN OXIDE, NO	0-200 ppm	1 ppm
NITROGEN DIOXIDE, NO <sub>2</sub>	0-20 ppm	0.1 ppm
CHLORINE DIOXIDE, ClO <sub>2</sub>	0-1 ppm	0.01 ppm
PHOSPHINE, PH <sub>3</sub>	0-5 ppm	0.05 ppm
HYDROGEN CYANIDE, HCN	0-30 ppm	0.5 ppm
CARBON DIOXIDE, CO <sub>2</sub>	0-10 % Vol	0.01 % Vol
BUTANE, C <sub>4</sub> H <sub>10</sub>	0-25 % Vol	0.1 % Vol
METHANE, CH <sub>4</sub>	0-100 % Vol	1 % Vol
PROPANE, C <sub>3</sub> H <sub>8</sub>	0-100 % Vol	1 % Vol
PROPANE, C <sub>3</sub> H <sub>8</sub>	0-100 % LEL	1 % LEL
PID - 10.6eV	0-2000 ppm	0.1 ppm



# Ordering Information

## ALTAIR 5X Multigas Detector

ALTAIR 5X Multi-Gas Detector with 3-year warranty, data logging, charger, integral pump and tubing	
Conguration	Part Number
LEL, O <sub>2</sub> , CO, H <sub>2</sub> S, 0-10 % CO <sub>2</sub> - COLOUR DISPLAY	10119611
LEL, O <sub>2</sub> , CO, H <sub>2</sub> S, NH <sub>3</sub> - COLOUR DISPLAY	10119632
LEL, O <sub>2</sub> , CO, H <sub>2</sub> S, SO <sub>2</sub> - COLOUR DISPLAY	10119616
LEL, O <sub>2</sub> , CO, H <sub>2</sub> S, PID - COLOUR DISPLAY	10166730
LEL, O <sub>2</sub> , CO, H <sub>2</sub> S - MONOCHROME DISPLAY	10119600

## ALTAIR 5X GALAXY® GX2 AUTOMATED TEST SYSTEM

Description	P/N
1 CYLINDER, CHARGING	10128635
UP TO 4 CYLINDERS, CHARGING	10128634
1 CYLINDER, NON-CHARGING	10128637
UP TO 4 CYLINDERS, NON-CHARGING	10128636

## Calibration Gas

Calibration Gas	
GAS CAN (58 L) (1.45 % CH <sub>4</sub> , 15.0 % O <sub>2</sub> , 60 PPM CO, 20 PPM H <sub>2</sub> S)	10053022
GAS CAN (58 L) (1.45 % CH <sub>4</sub> , 15.0 % O <sub>2</sub> , 60 PPM CO, 20 PPM H <sub>2</sub> S, 2.5 % CO <sub>2</sub> )	10102853
GAS CAN (34 L) (1.45 % CH <sub>4</sub> , 60 CO, 20 H <sub>2</sub> S, 15 % O <sub>2</sub> , 10 SO <sub>2</sub> )	10122425
GAS CAN (34 L) (100 PPM ISOBUTYLENE)	10169196

## Certifications/Approvals

Approvals		
ATEX Ⓢ – II 1G EX DA IA IIC T3, T4 GA	TA = -40 °C TO +50 °C	IP65 ZONE 0
ATEX Ⓢ – II 1G EX DA IA IIC T3 GA	TA = -40 °C TO +50 °C	IP65 ZONE 0 (ALTAIR 5X IR)
ATEX Ⓢ – II 1G DA IA IIC T4 GA	TA = -20 °C TO +50 °C	IP65 ZONE 0 (ALTAIR 5X PID)
IECEX Ⓢ – I M1 EX IA I MA	(ALTAIR 5X, 5X IR, 5X PID)	EN 50270 TYPE 2, EN 61000-6-3 MED 2010/68/EU (NOT APPLICABLE FOR ALTAIR 5X PID)

## Sensor Spare Parts/Replacements

Description	P/N
KIT, XCell EX SENSOR, COMBUSTIBLE	10106722
KIT, XCell O <sub>2</sub> SENSOR	10106729
KIT, XCell CO/H <sub>2</sub> S TWO-TOX SENSOR	10106725
KIT, XCell CO/H <sub>2</sub> S-LC TWO-TOX SENSOR	10121213
KIT, XCell CO H <sub>2</sub> -RES/H <sub>2</sub> S TWO-TOX SENSOR	10121214
KIT, XCell CO-HC SENSOR	10121216
KIT, XCell NO <sub>2</sub> /CO TWO-TOX SENSOR	10121217
KIT, REPLACEMENT, HCN	10106375
KIT, XCell Cl <sub>2</sub> SENSOR REPLACEMENT	10106728
KIT, REPLACEMENT, ClO <sub>2</sub>	10080222
KIT, XCell SO <sub>2</sub> SENSOR REPLACEMENT	10106727
KIT, REPLACEMENT, NO <sub>2</sub>	10080224
KIT, XCell NH <sub>3</sub> SENSOR REPLACEMENT	10106726
KIT, REPLACEMENT, PH <sub>3</sub>	10116638
KIT, REPLACEMENT, NO	10114750
KIT, REPLACEMENT, PID 10.6 EV SENSOR	10242735

## Accessories

Description	P/N
LEATHER HOLSTER	10099648
SAMPLING LINE, 3 M, PU CONDUCTIVE	10103189
SAMPLING LINE, 30 M, PU CONDUCTIVE	10159431
SAMPLING PROBE, EXIBLE 30 CM	10103191
USB IR RECEIVER	10082834
BATTERY PACK, ALKALINE	10114838
VERTICAL MULTI-UNIT CHARGER FOR FOUR ALTAIR 5X	10127428
CARRYING CASE	10152079

Additional ALTAIR 5X versions, calibration gas cylinders, sensors and accessories are available

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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