

# ALTAIR® 5X Multigas Detector

With MSA XCell® Sensor Technology



IT'S WHAT'S  
INSIDE  
THAT COUNTS

Now with  
advanced PID  
for VOC Detection

# 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 combustible gases in % LEL and/or % volume range, 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 3-meter 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 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 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 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>.

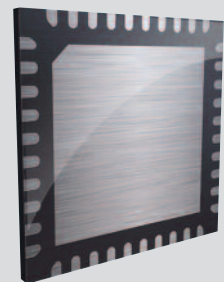
## Flexibility & Connectivity to Meet Your Needs

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 up to six gases can be monitored simultaneously.

The ALTAIR 5X is fully compatible with the MSA GALAXY GX2 Automated Test System and MSA Link™ Pro and MSA Link Software to efficiently manage your entire fleet.

# XCell®

S E N S O R S



**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.

## 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 2 years.**

- Typical life greater than 4 years for Combustible, O<sub>2</sub>, CO/H<sub>2</sub>S (and variants) , CO/NO<sub>2</sub>, CO-HC 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

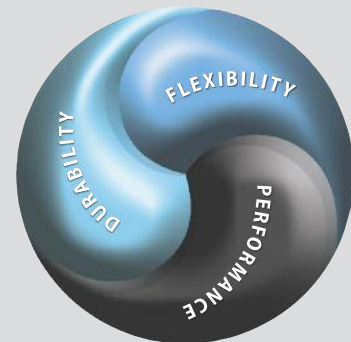
**3-year back-to-back instrument warranty includes LEL, O<sub>2</sub>, CO, H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub> XCell and IR sensors**

**2-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** 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** enables users to manually warn others of potentially hazardous situations.

The ALTAIR 5X is the Long-Life leader. To prove it, the instrument comes with a full 3-year warranty,\* an entire year longer than the industry average, so that you can depend upon the ALTAIR 5X to withstand the punishment that other portable gas detectors can't.



## Online Product Simulator



Feel free to use ALTAIR 5X Multigas Detector simulator that takes viewers through instrument operation. This tool, available in several languages, is found at <http://webapps.msanet.com/altair5xsimulator/default.aspx>.

Find all our simulators at <http://webapps.msanet.com/gasdetectionsimulators/>.

\* 3-year warranty is for most common sensor configurations.

# ALTAIR 5X Multigas Detector Features



**FULLY COMPATIBLE**  
WITH MSA LINK™ AND LINK PRO SOFTWARE AND MSA GALAXY® GX2 TEST SYSTEM

**VARIETY OF OPTIONAL**  
MSA INFRARED SENSORS

**ROBUST** INTEGRAL PUMP FOR CONSISTENT FLOW AND IMPROVED DURABILITY

**HIGH CONTRAST**  
COLOR OR MONOCHROME DISPLAY

**ADVANCED** OPTIONAL VOC DETECTION

**18** LANGUAGE OPTIONS

**LARGE BUTTONS** FOR EASY OPERATION

**ADVANCED**  
MOTIONALERT AND INSTANTALERT FEATURES

**HIGH PERFORMANCE**  
MSA XCELL SENSORS

**BLUETOOTH**  
WIRELESS CONNECTIVITY

**24-HOUR**  
BUMP CHECKMARK

**XCELL SENSOR**  
END-OF-LIFE INDICATOR

**DURABLE,**  
RUBBERIZED HOUSING FOR SECURE GRIP

MSA-exclusive feature

| Parameter              | Value   |
|------------------------|---------|
| Time                   | 1:30 PM |
| Gas                    | PENTANE |
| %LEL                   | 0       |
| %Vol                   | 20.8    |
| PPM (COMB)             | 0       |
| PPM (O <sub>2</sub> )  | 0.0     |
| PPM (CO)               | 0.0     |
| PPM (H <sub>2</sub> S) | 0.0     |
| PPM (VOC)              | 0.0     |
| PPM (SO <sub>2</sub> ) | 0.0     |

## Complete Solutions

The ALTAIR 5X Detector with advanced PID (photoionization) sensor options 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 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.

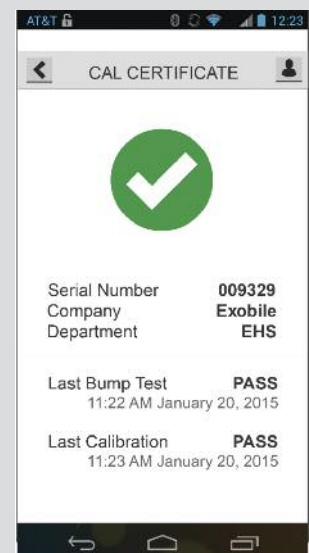


## Bluetooth Wireless Technology

By incorporating Bluetooth as a standard feature, MSA brings the benefits of wireless safety to everyone.

By downloading the free MSA Portable Instrument APP available in multiple languages, from Google Play, any compatible Android device becomes an enhanced safety and productivity tool when paired with the ALTAIR 5X.

- Get gas detection readings and man-down alerts
- Configure instruments remotely
- Automate gas detector records and events
- Drive greater productivity and greater workflow efficiency
- Achieve supervisory awareness of worker safety
- Send gas alarms via text or email



| 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                    |

| Technical Specifications   |  |
|----------------------------|--|
| Drop test                  | 3 m  |
| Ingress protection         | IP65   |
| Housing                    | Rugged rubberized armor  |
| Weight                     | 453 g (without belt clip, PID, or IR sensor)   |
| Dimensions (L x W x D)     | 16.9 x 8.9 x 4.2 cm without belt clip, PID, or IR sensor   |
| 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; PID version available with color display only  |
| Backlight                  | Adjustable time-out  |
| Battery                    | Rechargeable Li-ION or AA alkaline   |
| Run time                   | >20 hours run time @ room temperature  |
| Charging time              | <= 6 hours   |
| Humidity                   | 15–90 % RH non-condensing  |
| Data log                   | (Adjustable) average of 200 hours (at 1-minute intervals)  |
| Event log                  | Standard 1000 events   |
| Standard warranty          | 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; NH <sub>3</sub> and Cl <sub>2</sub> XCell Sensors 2 years, other sensors: 1 year |

| Approvals  |                       |   |
|--|-----------------------|---|
| ATEX Ⓢ – II 2G Ex db ia mb IIC T4 Gb                 | Ta = –40 °C to +50 °C | IP65 Zone 1 (w XCell Ex sensor)                   |
| ATEX Ⓢ – II 1G Ex ia IIC T4 Ga                       | Ta = –40 °C to +50 °C | IP65 Zone 0 (w/o XCell Ex sensor)                 |
| ATEX Ⓢ – II 2G Ex db e ia mb IIC T4 Gb               | Ta = –40 °C to +50 °C | IP65 (ALTAIR 5X IR)                               |
| ATEX Ⓢ – II 2G Ex db ia mb IIC T4 Gb                 | Ta = –20 °C to +50 °C | IP65 Zone 1 (w XCell Ex sensor) (ALTAIR 5X PID)   |
| ATEX Ⓢ – II 1G Ex ia IIC T4 Ga                       | Ta = –20 °C to +50 °C | IP65 Zone 0 (w/o XCell Ex sensor) (ALTAIR 5X PID) |
| ATEX Ⓢ – I M1 Ex ia I Ma (ALTAIR 5X & ALTAIR 5X PID) |                       |   |
| ATEX Ⓢ – I M1 Ex ia I Ma (ALTAIR 5X IR)              |                       |   |

| ALTAIR 5X Multi-Gas Detector with 3-year warranty, data logging, charger, integral pump and tubing |             |
|--|-------------|
| Configuration  | 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  |             |
|---|-------------|
| Configuration   | Part Number |
| 1 Cylinder, Charging  | 10128635    |
| Up to 4 Cylinders, Charging   | 10128634    |
| 1 Cylinder, Non-charging  | 10128637    |
| Up to 4 Cylinders, Non-charging   | 10128636    |
| Calibration Gas   |             |
| Gas can (58 l)<br>(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)<br>(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)<br>(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)<br>(100 ppm Isobutylene)   | 10169196    |

| Replacement Sensors                                  |             |  |             |
|--|-------------|--|-------------|
| Part Number  | Part Number | Part Number                                    | Part Number |
| PID 10.6eV   | 10165271    | XCell SO <sub>2</sub>                          | 10106727    |
| XCell LEL  | 10106722    | XCell Cl <sub>2</sub>                          | 10106728    |
| XCell O <sub>2</sub>                                 | 10106729    | XCell NH <sub>3</sub>                          | 10106726    |
| XCell CO/H <sub>2</sub> S Two-Tox                    | 10106725    | NO   | 10114750    |
| XCell CO H <sub>2</sub> RES/H <sub>2</sub> S Two-Tox | 10121214    | NO <sub>2</sub>                                | 10080224    |
| XCell CO/H <sub>2</sub> S-LC Two-Tox                 | 10121213    | ClO <sub>2</sub>                               | 10080222    |
| XCell CO/NO <sub>2</sub> Two-Tox                     | 10121217    | PH <sub>3</sub>                                | 10116638    |
| XCell CO-HC  | 10121216    | HCN  | 10106375    |
| Accessories  |             |  |             |
| Leather holster                                      | 10099648    | USB IR receiver                                | 10082834    |
| Sampling line, 3 m, PU conductive                    | 10103189    | Battery pack, alkaline                         | 10114838    |
| Sampling line, 30 m, PU conductive                   | 10159431    | Vertical multi-unit charger for four ALTAIR 5X | 10127428    |
| Sampling probe, flexible 30 cm                       | 10103191    | Carrying case                                  | 10152079    |

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

## Your direct contact

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