ALTAIR® MAINTENANCE-FREE SINGLE-GAS DETECTORS

- Factory-calibrated detector with warranted two-year service life (1080 alarm minutes)
- Sensor options for CO, H_2S, and O_2
- Maintenance-free; no sensor or battery change necessary
- Easy bump check and built-in calibration feature
- Event recorder stores last 25 events automatically in instrument memory
- MSA Link™ software-ready
- High capacity battery
- Rated to IP67 for dust and water ingress
- Weight: 4 oz.

HX989

MSA

Order No.	Mfg. No.	Description
SAO781	10092522	CO
HX989	10092521	H_2S
HX990	10092523	O_2

ALTAIR® 4X MULTIGAS DETECTORS

- Dependable multigas detector for LEL, CO, H_2S and O_2
- Large buttons and bright display enable quick and easy operation, even when wearing gloves
- Withstands extreme impacts with rugged polycarbonate housing
- Laser-welded sensor housings eliminate opportunities for leaks
- End-of-sensor-life warning gives advance notice to user, reducing service outages
- If a user becomes disabled due to unforeseen hazards, MotionAlert feature will activate after 30 seconds
- InstantAlert feature enables users to manually alert others of a potentially hazardous situation with the push of a button
- MSA Link™ software-ready
- Full three-year warranty supports the entire instrument, including the sensors and battery
- Lithium-polymer battery charges in less than 4 hours
- Rated to IP67 for dust and water ingress
- Weight: 7.9 oz.

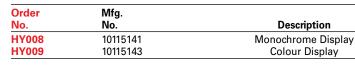**Order No. HX991**
Mfg. No. 10107602

MSA

ALTAIR® 5X MULTIGAS DETECTORS

- Dependable multigas detector for LEL, CO, H_2S, O_2, and SO_2
- Can be customer configured for up to 6 gases
- Large buttons and bright display enable quick and easy operation, even when wearing gloves
- Withstands extreme impacts with rugged polycarbonate housing
- End-of-sensor-life warning gives advance notice to user, reducing service outages
- If a user becomes disabled due to unforeseen hazards, MotionAlert feature will activate after 30 seconds
- InstantAlert feature enables users to manually alert others of a potentially hazardous situation with the push of a button
- Integral pump, 10' sampling line, and 1' probe for confined space applications
- MSA Link™ software-ready
- Rechargeable lithium-ion battery
- Rated to IP65 for dust and water ingress
- Weight: 1 lb

HY008

HY009

MSA

Order No.	Mfg. No.	Description
HY008	10115141	Monochrome Display
HY009	10115143	Colour Display

Gas Detection

INDOOR AIR QUALITY METERS

- Simultaneously monitors carbon dioxide (CO_2), relative humidity and temperature dew point and wet-bulb temperatures can also be displayed
- High resolution LCD with backlight display
- Displays STEL readings (short-term exposure limit) over a 15-minute period and TWA readings (Time-weighted average) over a period of 8 hours
- Maximum, minimum and average functions
- Audible warning alarm of excessive CO_2 concentrations
- RS-232 serial interface

Order No. IA645
Mfg. No. 77535

REED

SPECIFICATIONS:

CO_2 Range:	0 to 5000 ppm
Resolution:	1 ppm
Accuracy:	±5% rdg. ±50 ppm
Temperature Range:	-10 to 60°C (14 to 140°F)
Resolution:	0.1°C/°F
Accuracy:	±0.6°C (±0.9°F)
Humidity Range:	0 to 99.9% RH
Resolution:	0.1% RH
Accuracy:	±3% RH @ 25°C (10 to 90% RH), ±5% RH <10% & >90%
Dew Point Range:	-73.4 to 60°C
Wet Bulb Range:	-13.3 to 60°C
Response Time:	30 seconds
Power Supply:	4 x AA alkaline batteries
Battery Life:	24 hours

CARBON MONOXIDE METERS

- Highly accurate with fast response time
- Measuring range from 1 to 1000 PPM with a 1 PPM resolution
- ±5% or ±10 PPM basic accuracy (whichever is greater)
- Max, Data hold and Auto shut off
- Utilises a stabilised electrochemical gas specific fast response sensor
- Audible alarm starts at 35 PPM
- Backlight LCD display
- Dimensions/Weight: 160 x 56 x 40 mm/180 g
- Complete with 9 V battery and carrying case

Order No. HX361
Mfg. No. CO-180

REED

COMBUSTIBLE GAS DETECTORS

- Detects a wide variety of gases, including some toxic gases and nuisance vapours

Order No. IA394
Mfg. No. GD-3300

REED

SPECIFICATIONS:

Sensitivity:	50 ppm methane
Sensor Type:	Low power semi-conductor
Warm Up Time:	Approx. 5 minutes
Response Time:	Less than 2 seconds
Power Supply:	3 "C" cell batteries
Battery Life:	8 hours of continuous use, typical
Alarm:	Visible and audible at 10% LEL for and can be calibrated for other concentrations or gases (up to 40% LEL)
Duty Cycle:	Continuous
Probe Length:	16"

COMBUSTIBLE GAS DETECTORS

- Leak detector is extremely sensitive to a variety of generally used combustible gases, e.g. Hydrocarbons, methane
- Heated semiconductor gas sensor
- High-low sensitivity selector
- Detects leaks as small as 5 ppm of gasoline
- Ambient concentration reset function
- Flexible stainless steal probe
- **Includes:** Batteries, a reference leak source and hard carrying case

Order No. IA662
Mfg. No. C-383

REED

SPECIFICATIONS:

Gases Sensed:	Gasoline, propane, natural gas or fuel oil
Sensitivity:	Variable, as low as 5 ppm (gasoline)
Alarm Settings:	7 LED tricolour bar indicator; variable intensity audio alarm
Warm Up Time:	90 seconds
Power Supply:	4 x 1.5 V AA alkaline batteries
Battery Life:	Approx. 40 hours of continuous use
Probe Length:	400 mm (15.5")

REFRIGERANT LEAK DETECTORS

- Microprocessor control with advanced digital signal processing
- Detects all halogenated refrigerants
- Audible and visual leak indications
- No user calibration required
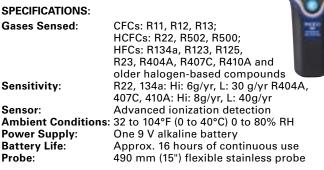- **Includes:** Reference leak source and carrying case

Order No. IA450
Mfg. No. C-380

REED

SPECIFICATIONS:

Gases Sensed:	CFCs: R11, R12, R13; HCFCs: R22, R502, R500; HFCs: R134a, R123, R125, R23, R404A, R407C, R410A and older halogen-based compounds
Sensitivity:	R22, 134a: Hi: 6g/yr, L: 30 g/yr R404A, 407C, 410A: Hi: 8g/yr, L: 40g/yr
Sensor:	Advanced ionization detection
Ambient Conditions:	32 to 104°F (0 to 40°C) 0 to 80% RH
Power Supply:	One 9 V alkaline battery
Battery Life:	Approx. 16 hours of continuous use
Probe:	490 mm (15") flexible stainless probe

SOUND LEVEL METER

- Meets IEC 651 Type 1 specifications
- 3 ranges, 30 to 130 dB,
- MAX HOLD, DATA HOLD
- A/C frequency weighting
- Fast/Slow time weighting
- AC output
- Internal 94 dB calibration

Order No. HN404
Mfg. No. SL-4022

REED

SOUND LEVEL METERS

- Measures sound levels in accordance with IEC61672 Class 2 specifications
- A/C frequency weighting
- Fast/slow time weighting
- Peak hold, data hold and max./min. record
- Real time data logger with integral 2GB SD memory card (optional)
- RS232 and USB interface
- Measuring Range: 30 to 80 dB, 50 to 100 dB, 80 to 130 dB

Order No. IA799
Mfg. No. SD-4023

REED

LIGHT METERS

- Measures ambient light levels as well as temperature with a type J/type K thermocouple thermometer
- Sensor features two filters and meets C.I.E. spectrum specifications
- Real time data logger with integral 2GB SD memory card (optional)
- RS232 and USB interface
- Light levels are measured in ftc or lux
- Temperature is measured in °C or °F
- Light range: 2000, 20 000, 100 000 lux
- Temp. range: J: -100° to 1200 °C; K: -100° to 1300 °C

Order No. IA798
Mfg. No. SD-1128

REED

SOUND LEVEL METERS

- IEC651 Type II
- 32-80, 50-100, 80-130 dB level ranges
- Autoranging from 30 to 130 dB
- Dynamic range of 50 dB
- 0.1 dB resolution
- Frequency range: 31.5 Hz to 8 kHz
- Accuracy of ±1.5 dB (ref 94 dB @ 1 kHz)
- 32 000 record data logger
- 4-digit backlit display
- Clock and bar graph displays
- Auto power off
- AC and DC output
- Max/Min function
- Includes: calibration screwdriver, windscreen, RS232 cable, Windows® datalogging software, battery, manual and carrying case

DATALOGGING

IA661
- Professional, 1 kHz/94 dB
- Diecasting aluminum alloy housing case
- Two 9 V batteries
- Size: 50 mm dia. x 82 mm

IA661

HN408
- Wind shield ball for sound level microphones
- Compatible with **IA153**, **HN404, HN405, HX311** and **IA154**
- Size: 65 mm dia.

HN408   *IA153*

REED

Order No.	Mfg. No.	Description
IA153	C-322	Datalogging Sound Level Meter
HN408	SB-01	Wind Shield Ball
IA661	SC-05	Sound Calibrator

SOUND LEVEL METERS

- Dual range measurement (Hi/Lo)
- "A & C" frequency weighting
- Large, easy-to-read LCD display
- Electret condenser microphone for high accuracy and longterm stability
- AC/DC output signal for use with data loggers
- Data Hold, Max Hold functions and low battery indication
- Meets IEC651 Type 2 requirements
- Includes: Carrying case and battery

REED

Order No. HX387   *Mfg. No.* ST-805

SPECIFICATIONS

Measuring Range:	Low: 35 to 100 dB; High: 65 to 135 dB (A & C)
Resolution:	0.1 dB
Accuracy:	±1.5 dB
Frequency:	31.5 Hz to 8 kHz
Time Weighting:	Fast/Slow (A & C)
Microphone:	1/2" electret condenser
Power Supply:	1 x 9V battery

THERMO-HYGROMETERS

- Dual LCD display shows ambient temperature and relative humidity
- Humidity Range: 10% to 95% RH
- Temperature Range: 32° to 122°F (0° to 50°C)
- User selectable °F / °C
- Data Hold and Min/Max function
- Compact and lightweight
- Battery included

SOFT CARRYING CASE
Order No. HN413   *Mfg. No.* CA-52A

Order No. HX287   *Mfg. No.* LM-81HT

SPECIFICATIONS:

Humidity Range:	10 to 95% RH
Humidity Resolution:	0.1%
Temp. Range:	32 to 122°F (0 to 50°C)
Temp. Resolution:	0.1°F/C
Display:	Dual LCD, humidity and temperature
Power Supply:	1 x 9 V Battery

HEAT STRESS METERS

- Measures indoor and outdoor WBGT (Wet Bulb Globe Temperature), Black Globe (TG) temperature, humidity, wet bulb, dew point and air temperatures
- Adjustable audible WBGT alarm setting
- Real time data logger with integral 2GB SD memory card (optional)
- RS232 and USB interface
- Temperature is measured in °C or °F
- Indoor WBGT Range: 0° to 59°C
- Outdoor WBGT Range: 0° to 56°C
- TG Temp. Range: 0° to 80°C
- Air Temp. Range: 0° to 50°C
- Humidity Range: 5% to 95% RH

Order No. IA794
Mfg. No. SD-2010

TEMP/RH DATA LOGGERS

- Records up to 32 700 ambient temperature and relative humidity readings
- User selectable recording intervals from 1 s to 24 h
- Minimum/Maximum function with alarm
- Real-time clock stores data and time
- LCD readout displays current temperature (°F or °C) or humidity reading, min/max reading with date and time
- Download data directly to a PC via USB cable supplied
- Includes data logger, mounting bracket with screws, USB cable, software diskette, security lock and battery
- Temperature Range: -40 to 158°F (-40 to 70°C)
- Humidity Range: 0 to 100% RH

Order No. IA680
Mfg. No. ST-172

TEMPERATURE/HUMIDITY DATA LOGGERS

- Monitors both ambient temperature and relative humidity
- Stores up to 16000 temperature and 16000 humidity readings
- Alarm display if user-defined max/min values are exceeded
- Simply plug the logger into the USB port of your computer to begin downloading
- Includes wall mount bracket and Windows compatible software

Order No. IA449   *Mfg. No.* ST-171

SPECIFICATIONS:

Temperature Range:	-40 to 158°F (-40 to 70°C)
Accuracy:	±3.6°F (±2°C): -40 to 14°F & 104 to 158°F (-40 to 10°C & 40 to 70°C); ±1.8°F (±1°C) 14 to 104°F (10 to 40°C)
Humidity Range:	0 to 100% RH
Accuracy:	±5.0%: 0 to 20% & 80 to 100%; ±3.5%: 20 to 40% & 60 to 80%; ±3.0%: 40 to 60%
Sampling Rate:	User selectable rate: 2s, 5s, 10s, 30s, 1m, 5m, 10m, 30m, 1h, 2h, 3h, 6h, 12h, 24h
Power Supply:	3.6V lithium battery
Battery Life:	1 year: 5s sample rate; 2.5 year: 10s sample rate

HEAT STRESS METERS

- Wet Bulb Globe Temperature (WBGT) considers the effects of temperature, humidity and direct or radiant sunlight
- In/Out function displays the WBGT value with or without direct sun exposure
- Built-in RS232 interface
- Tripod mounts design for long term monitoring

SPECIFICATIONS:

Air Temp. Range:	32 to 122°F (0.0 to 50.0°C)
Accuracy:	±1.1°F (±0.6°C)
Black globe temp. range:	32 to 176°F (0.0 to 80.0°C)
Accuracy:	±1°C: 15 to 40°C, ±1.5°C: rest of range for indoor; ±1.5°C: 15 to 40°C, ±2°C: rest of range for outdoor
WBGT Temp. Range:	32 to 122°F (0.0 to 50.0°C)
Resolution:	0.1°F (0.1°C)
Humidity Range:	0 to 100% RH
Accuracy:	±3% RH: 10 to 90% RH, ±5% RH: rest of range
Resolution:	0.1% RH
Power Supply:	2 x AAA batteries

Order No.	Mfg. No.	Description
IA639	8778	Heat Stress Meter
IA447	BS-6	Tripod
HX515	HR33	33% Humidity Calibration Standard
HX514	HR75	75% Humidity Calibration Standard
IA452	VZRS232BN	RS232 Cable and Software

DIGITAL THERMOMETERS

- Temperature Range:
  -58 to 2000°F (-50 to 1300°C)
- User selectable °F or °C
- User selectable 0.1°F or 1°F
  (0.1°C or 1°C) resolution
- Accuracy to 0.5% ± 2°F/± 1°C
- Display maximum
  reading plus Data Hold
- Large LCD display
  with backlight
- Accept K-type thermocouples
- Includes: One 9 V
  battery and holster

Order No. HX381
Mfg. No. ST-610B

REED

TYPE K THERMOCOUPLE PROBES

SURFACE PROBES

- Ribbon-style surface probe
- Maximum Temperature: 400°C

Order No. HN209 *Mfg. No.* LS-109

SPRING-LOADED SURFACE PROBES

- Spring-loaded probe is ideal for high temperature
  surface measuring requirements
- Extremely fast response time
- Not recommended for use as an immersion probe
- Maximum Temperature: 500°C

Order No. HN210 *Mfg. No.* LS-139

RIGHT ANGLE SURFACE PROBES

- Unique right angle design
  allows temperature of hard
  to reach areas to be taken
- Great for monitoring temperature inside pipes, also
  flat surfaces, without keeping hands over heated area
- Maximum Temperature: 400°C

Order No. HN211 *Mfg. No.* LS-104

AIR/GAS PROBES

- Specially designed to measure air or gases in heating
  and cooling units, ovens and engine exhausts
- Perforated shield permits fasts response while
  providing exceptional element protection
- Maximum Temperature: 800°C

Order No. HN212 *Mfg. No.* LS-103

NEEDLE TIP PENETRATION PROBES

- Medium gauge hypodermic needle tip, used
  to measure softer food stuffs, rubbers and solids
- Ideal for use in industrial, laboratory
  and chemical environments
- Maximum Temperature: 800°C

Order No. HN213 *Mfg. No.* LS-134A

GENERAL PURPOSE IMMERSION PROBES

- Used to measure both air or liquids, but is best
  recommended for immersion applications
- Excellent for checking temperature of oils,
  water and non-corrosive fluids
- Maximum Temperature: 700°C

Order No. HN214 *Mfg. No.* LS-107

ANEMOMETERS

- Integral vane design
- Push button operation
- Data hold, record (Max/Min)
- Pocket-sized
- Includes battery

SPECIFICATIONS:

Air Velocity Range (Resolution):
0.4 to 30.0 m/s (0.1 m/s);
1.4 to 108.0 km/h (0.1 km/h);
0.9 to 67.0 mph (0.1 mph);
0.8 to 58.3 knots (0.1 knot);
80 to 5910 ft/min (1 ft/min)

Dimensions: 156 x 60 x 33 mm
Weight: 160 g

REED

Order No.	Mfg. No.	Description
HX286	LM-81AM	Anemometer
HN413	CA-52A	Soft Carrying Case

PH METER

- Dual displays of temperature and pH
- °F or °C temperature measurement
- Automatic temperature compensation
  assures that readings are corrected
  for temperature offsets
- One touch calibration for up to 3 points
- Calibration values are adjustable
- Includes batteries
- pH Range: 0.00 to 14.00 pH
- Temperature Range: 0 to 60.0°C
- Accredited calibration available

REED

Order No.	Mfg. No.	Description
IA693	8689	Digital pH Pen
IA694	86P8	Replacement pH Electrode
HX298	PH-04	4.0 pH Buffer Solution
HX299	PH-07	7.0 pH Buffer Solution

DIGITAL CONTACT/PHOTO TACHOMETERS

**Fast and accurate RPM and surface
speed measurements of rotating objects.**

- Dual function unit with both contact
  and non-contact capabilities
- Supplied with adaptors FPM, RPM
  and surface speed mesurements
- Non-contact function utilizes laser
  light beam for improved accuracy
- Recalls Max/Min and last values
- Large, easy to read display
- Autoranging with 0.05% accuracy
- Includes: Battery and carrying case

Order No. HX386 *Mfg. No.* ST-6236B

SPECIFICATIONS:

Photo Mode: 5 to 99,999 RPM
Contact Mode: 5 to 19,999 RPM
Surface Speed: 0.05 to 1999.9 MPM
Accuracy: ±(0.05% + 1 digit)
Display: 5-digit LCD

REED

INFRARED THERMOMETERS

- Safely measure surface temperatures of hot, hazardous or hard-to-reach objects without contact
- User selectable °F or °C
- Built-in laser pointer identifies target area
- 8:1 distance to spot size ratio
- Fixed emissivity covers 90% of all applications
- Automatic data hold
- Display backlight
- Low battery indication with auto shut off
- Includes battery

Order No. IA853   *Mfg. No.* R2001   **REED**

SPECIFICATIONS:

Temperature Range:	-58 to 536°F (-50 to 280°C)
Resolution:	1°F/1°C
Accuracy:	± 2% of reading or 2°C
Optical Resolution:	8:1
Spectral Response:	5 μm to 14 μm
Emissivity:	Fixed at 0.95
Response Time:	500 ms
Power Supply:	Single 9 V battery
Dimensions:	94 x 56 x 28 mm
Weight:	76 g

MINI INFRARED THERMOMETERS

- Unique flat surface and modern housing design
- Wide temperature range from -58° to 932°F (-50 to 500°C)
- User selectable °F or °C
- Built-in laser pointer identifies target area
- Backlighting illuminates display for taking measurements at night or in areas with low background light levels
- Overrange indicator, Auto data hold (when trigger released) and Auto shut off
- Fixed 0.95 emissivity covers 90% of surface applications
- Includes: Battery and carrying case

Order No. IB537   *Mfg. No.* R2002   **REED**

SPECIFICATIONS:

Temperature Range:	-58 to 932°F (-50 to 500°C)
Accuracy:	±2%
Display:	Backlit LCD
Response Time:	< 1 second
Emissivity:	0.95 fixed
Distance to Spot Size Ratio:	8:1
Resolution:	1°F/1°C
Dimensions:	160 x 82 x 41 mm
Weight:	177 g

INFRARED THERMOMETERS W/THERMOCOUPLE INPUT

- Integral type K thermocouple input
- Built-in laser pointer
- Digitally adjustable emissivity
- Automatic emissivity capture
- High and low alarms
- Max, Min, Average, Diff record
- 20 data points of memory
- Display backlighting
- Auto Data Hold and Auto Shut Off
- Trigger lock
- Includes: Type K thermocouple probe, battery, and carrying case

Order No. IA496   *Mfg. No.* ST-8835   **REED**

SPECIFICATIONS:

IR Temperature Range:	-58.0 to 1922°F (-50.0 to 1050°C)
Resolution:	0.1°F/0.1°C
T/C Temperature Range:	-58.0 to 2498°F (-50.0 to 1370°C)
Resolution:	0.1° ≤ 2000°, 1° > 2000°
Accuracy:	±1.5% of reading
Optical Resolution:	30:1
Emissivity:	Adjustable, 0.10 to 1.0
Response Time:	< than 1 second
Power Supply:	Single 9 V battery
Dimensions:	180 x 106 x 48 mm
Weight:	250 g

INFRARED THERMOMETERS

- Precise non-contact temperature measurements
- Temperature Range: -58° to 1832°F (-50° to 1000°C)
- Fahrenheit/Celsius selectable
- Digitally adjustable emissivity from 0.10 to 1.0
- High and low alarm setpoints
- Max, Min and Dif. Avg. temperature displays
- Built-in laser pointer
- Large LCD with backlight and display hold
- Includes: battery and carrying case
- 50:1 distance to spot size ratio
- Accredited calibration available

Order No. IA084   *Mfg. No.* ST-8839   **REED**

SPECIFICATIONS:

Temperature Range:	-58 to 1832°F (-50 to 1000°C)
Accuracy:	±2%
Display:	Backlit LCD
Response Time:	< 1 second
Emissivity:	Adjustable 0.10 to 1.0
Distance to Spot Size Ratio:	50:1
Resolution:	0.1° up to 200°, 1° over 200°
Dimensions:	230 x 100 x 56 mm
Weight:	290 g

FOOD SERVICE INFRARED THERMOMETERS

- Contact and non-contact food service thermometer
- Optical Resolution: 12:1 (Distance: Spot size)
- Infrared thermometer features laser sighting
- Accepts any Type K thermocouple probe with mini-connector
- Choice of five different colour faceplates - choose a different colour faceplate for each department or food category
- Large backlit LCD readout
- Max, Min, Diff and Avg. displays
- Programmable Hi/Lo alarms
- Lock feature for continuous monitoring
- Includes holster/case

BIOS *Professional*

Order No. IA432   *Mfg. No.* PS200

SPECIFICATIONS:

Range:	-76° to 932°F (-60° to 500°C)
Resolution:	±1.0°F (±1.0°C)
Accuracy:	±2% rdg. or ±2°C, whichever is greater
Response Time:	1 second
Spectral Response:	8 to 14 μm
Emissivity:	Preset at 0.97
Optical Resolution:	12:1 (Distance: Spot size)
Type K Thermocouple Probe Range:	-83° to 1999°F (-64° to 1400°C)
Accuracy:	±1% rdg. or ±1°C, whichever is greater
General Power Supply:	2 x AAA alkaline batteries
Dimensions:	175 x 39 x 72 mm (6.9 x 1.5 x 2.8")
Weight:	137 g