MDA Scientific SPM

Honeywell

Fast response monitor for the detection of a target gas

SPM

Advantages

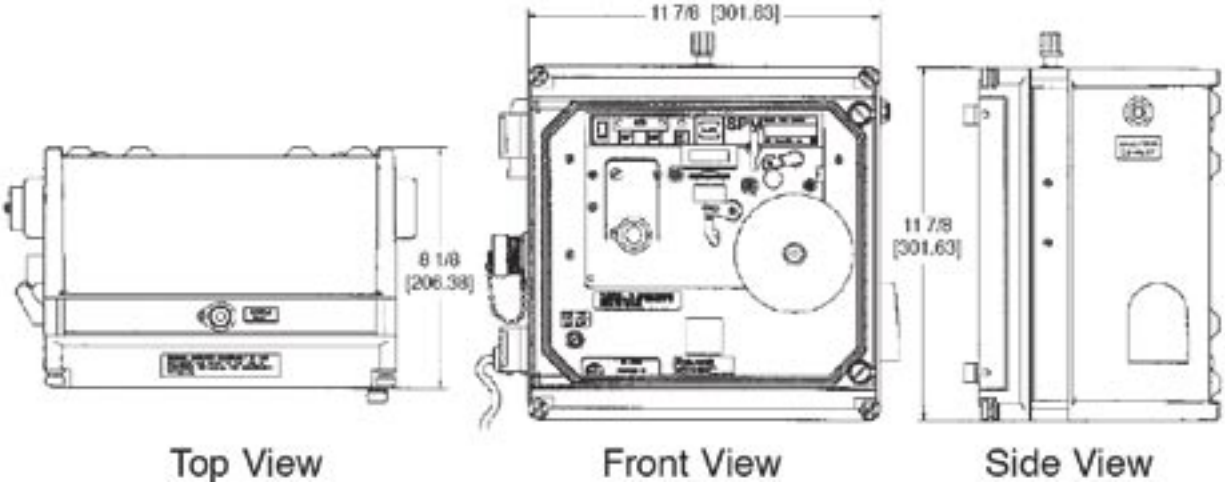
- Fast response monitor specific to target gas only
- Gas sensitivity to ppb levels with physical evidence
- Minimum maintenance and no dynamic calibration
- Customized for harsh industrial environments
- More than 50 gas calibrations available

Applications

- Outdoor locations
- Corrosive areas
- Remote sampling areas
- Gas storage areas
- Survey work
- Perimeter/fencelines
- Ventilation and exhaust systems

Options

- Z-purge system
- Duty cycle
- ChemKey™
- RS422
- Remote reset
- Portable
- Extended sample
- Heater option
  (operate from -20°C to ±40°C)



Technical Specification

Specifications	
Detection Technique	Chemcassette® Detection System
Alarm Point	Dual level alarms typically set at 1/2 TLV and TLV
Response Time	As fast as 10 seconds
Alarm Indication	Local audio/visual alarms; remote capability optional
Signal Outputs	SPDT concentration alarm relays; SPDT fault relay; 4-20 mA; digital display
Relay Rating	120VAC@10amps; 240VAC@5amps
Operating Temperature Range	32° to 104°F; 0° to 40°C (basic unit); heating/cooling optional
Power Requirements	115/230 VAC 50/60 Hz, battery operation optional
Enclosure	NEMA 4X fiberglass (basic unit)
Dimensions	12"(H) x 12"(W) x 7"(D) (30.5 x 30.5 x 17.8 cm) (basic unit)
Weight	14.5 pounds (6.6 kg) (basic unit)

Note: options may vary the specifications

Detectable Gases Range	
Amines	
Ammonia (NH3)	2.6-75.0 ppm
Ammonia (NH3)-II	2.6-75.0 ppm
Dimethylamine (DMA)	0.1-6 ppm
n-Butylamine (n-BA)	0.4-12 ppm
Methylene Dianiline (MDA)	3-60 ppb
p-Phenylene Diamine (PPD)	2-60 ppb
Toluene Diamine (TDA)	4-60 ppb
Trimethylamine (TMA)	1.1-30.0 ppm
Diisocyanates	
(CHDI, HDI, HMDI, IEM, IPDI, MDI, NDI, PPDI, TDI, TMDI, TMXDI, XDI)	2-60 ppb
Hydrazines	
MMH*	3-30 ppb
N_2H_4*	20-300 ppb
UDMH*	5-30 ppb
Hydrides	
Arsine (AsH_3)	15-150 ppb
Diborane (B_2H_6)	31-300 ppb
Disilane (Si_2H_6)	1.5-15 ppm
Germane (GeH_4)	141-600 ppb
Hydrogen Selenide (H_2Se)	20-150 ppb
Phosphine (PH_3)	32-900 ppb
Silane (SiH_4)*	0.5-15 ppm
Stibine (SbH_3)	20-300 ppb
tert-Butylarsine (TBA)	15-150 ppb
tert-Butylphosphine (TBP)	60-900 ppb
Hydrogen Cyanide (HCN)	1.1-30.0 ppm
Hydrogen Sulfide (H_2S)*	1.1-30.0 ppm
Mineral Acids	
Hydrogen Bromide (HBr)*	0.3-9.0 ppm
Hydrogen Chloride (HCl)*	0.5-15.0 ppm
Hydrogen Flouride (HF)	0.6-9.0 ppm
Hydrogen Iodide (HI)	0.3-9.0 ppm
Nitric Acid (HNO_3)	0.2-6.0 ppm
Sulfuric Acid (H_2SO_4)	26-750 ppb
Oxidizers	
Bromine (Br_2)	11-300 ppb
Chlorine (Cl_2)	0.05-1.5 ppm
Chlorine (Cl_2)	-II 0.05-1.5 ppm
Chlorine Dioxide (ClO_2)	11-300 ppb
Hydrogen Peroxide (H_2O_2)*	0.1-3 ppm
Nitrogen Dioxide (NO_2)*	0.3-9.0 ppm
Ozone (O_3)	31-300 ppb
Phosgene (COCl2)*	11-300 ppb
Sulfur Dioxide (SO2)*	0.2-6.0 ppm

* other ranges available

MDA Scientific has developed a sophisticated range of highly sensitive gas detection equipment, designed to perform in ways that define new gas detection performance levels providing total solutions to protect people, improve production efficiency and reduce costs.

The MDA Scientific range of toxic gas detection

Single Point Monitor

The SPM overcomes the difficulty of ensuring that basic units for toxic gas monitoring are accurate and free of interference from environmental conditions or other chemicals, by using our interference-free Chemcassette® detection technique. The SPM can also be used outdoors and has heating and cooling options to suit environmental conditions.

Vertex

Vertex provides a flexible, cost-effective monitoring solution that can adapt to changing needs. Using advanced Chemcassette® software and optics technologies, Vertex can monitor from 8 to 72 points of gas detection, up to 9 gas families and more than 40 gases.

Model IR-148

The Model IR-148 detects solvents and gases such as HCFCs, HFCs and PFCs that are otherwise difficult to monitor without the effect of cross-interfering gases.

Midas®

Midas® can measure virtually all the toxic and flammable gases found in manufacturing and storage applications. The range is in fact a universal transmitter design that differs significantly from the Lifeline II range which had separate passive, extractive and pyrolyzer variants with different footprints and performance characteristics.

CM4

CM4 provides monitoring of toxic gases at four locations, up to 300 feet away – detection of ppb levels of toxic gases at multiple points. Points are monitored continuously. Leaks are detected within seconds.

IN-USA

The IN-USA range of microprocessor controlled analyzers detect trace amounts of ozone (O_3) gas. Systems can be configured with relays and different signal output options for integration within life safety networks. High levels of signal sensitivity and resistance to false alarm are enabled by the use of advanced ultraviolet (UV) lamp detection systems.

Chemcassette®

The Chemcassette® detection system is the heart of an MDA toxic gas monitoring system. Chemcassettes® use a dry reagent medium to collect and analyze air to detect gas leaks. When the Chemcassette® is exposed to a target gas, it changes color in direct proportion to the concentration of gas present. MDA Scientific monitors read color intensity changes and determine the gas concentration by comparison to a known gas response pre-programed into the instrument.

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