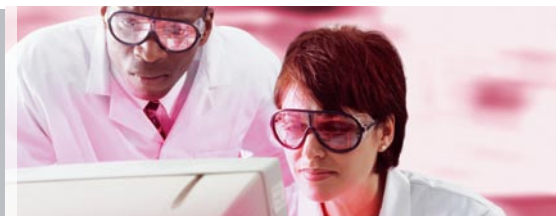




CM4® toxic gas monitor, interference free and low maintenance of ownership solutions for the semiconductor, pharmaceutical and chemical industries

CM4® Toxic Gas Monitor

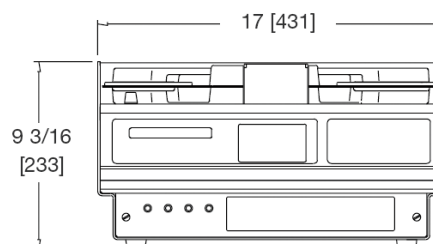
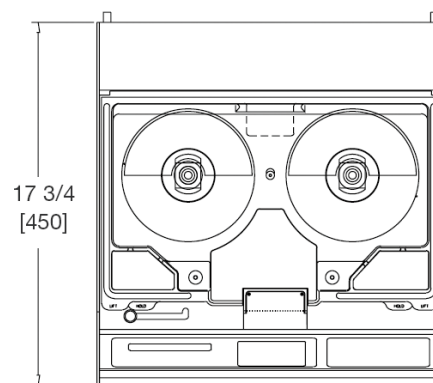


Features

- **Continuous Monitoring on 4 Points**
Total surveillance all the time
- **Chemcassette® Technology**
Reliable, interference-free method provides physical evidence of events
- **Analog and Serial Outputs**
Permits easy installation into virtually all annunciation and shutdown systems
- **300' (90m) Sampling Distance**
Monitors can be positioned conveniently with minimal fab intrusion
- **Table, Wall or Rack Mount Versions**
Flexible to meet any requirement
- **LonWorks® Interface Available**
Permits peer to peer communication and low cost of installation
- **Serial Printer Option**
Permits archiving of all important events and system configurations
- **Integral Audio and Visual Alarms**
Easily identifies all events

This CM4® unit represents the latest in interference free, low maintenance, low cost of ownership solutions for the semiconductor, pharmaceutical and chemical industries.

This CM4® unit represents the latest in interference free, low maintenance, low cost of ownership solutions for the semiconductor, pharmaceutical and chemical industries. Its low profile 1/4" tubing minimizes intrusion into process areas, ducts, gas cabinets, etc. A variety of signal outputs are available making CM4® a truly flexible product. It easily installs into most building alarm systems. An optional rack mount enclosure and printer fill out the product range, providing convenient housing and documentation capability. The unit is capable of detecting over 25 gases-some within the same family (hydrides, mineral acids, etc.)



Inches [mm's]

Technical Specification



Substance	Response Time to TLV	Range
Amines		
Ammonia II (NH ₃)	10	3-75 ppm
Dimethyl Amine (DMA)	30	0.3-30 ppm
Tetrakis Dimethyl Amino Titanium (TDMAT)	30	0.1-7.5 ppm
Triethylamine (TEA)	10	0.3-35 ppm
Chlorine III (Cl₂)	20	0.05-5.0 ppm
Chlorine II (Cl₂) Low Level	20 @ 200 ppb	7-2000 ppb
Chlorine Dioxide (ClO₂)	50	30-1000 ppb
Fluorine (F₂)	30	0.6-10 ppm
Hydrazines		
Dimethyl Hydrazine (UDMH)	240	3-5000 ppb
Hydrazine (N ₂ H ₄)	60	0.7-1000 ppb
Hydrides		
Arsine (AsH ₃)	10	5-500 ppb
Arsine Dry (AsH ₃)	25	5-500 ppb
Arsine (AsH ₃) Low Level	11	0.3-25 ppb
Diborane (B ₂ H ₆)	30	15-1000 ppb
Germane (GeH ₄)	240	100-2000 ppb
Hydrogen Selenide (H ₂ Se)	35	6-500 ppb
Phosphine (PH ₃)	10	5-3000 ppb
Silane (SiH ₄)	25	0.5-50 ppm
Tertiary Butyl Arsine (TBA)	30	12-500 ppb
Hydrogen Cyanide (HCN)	15	0.5-50 ppm
Hydrogen Sulfide (H₂S)	10	0.5-100 ppm
Hydrogen Sulfide (H₂S) Low Level	30 @ 500 ppb	8-2000 ppb
Mineral Acids		
Boron Trifluoride (BF ₃) Low Level	80	100-1500 ppb
Hydrogen Bromide (HBr)	20	0.3-30 ppm
Hydrogen Bromide (HBr) Low Level	60 @ 500 ppb	50-2000 ppb
Hydrogen Chloride (HCl)	15	0.5-15 ppm
Hydrogen Chloride (HCl) Low Level	20 @ 500 ppb	80-8000 ppb
Hydrogen Fluoride (HF)	25	0.3-30 ppm
Hydrogen Iodide (HI)	20	0.1-25 ppm
Nitrogen Dioxide (NO₂)	15	0.3-30 ppm
Phosgene (COCl₂)	15	7-1000PPB

Nitrogen Trifluoride (NF₃) available, see separate datasheet on CM4®-P

Technical Data Specifications

Detection Technique	Chemcassette Technology
Gases Available	See chart above
Monitoring Points	Four
Sampling Distance	300 Ft (90m) 1/4" OD X 3/16" ID FEP grade Teflon® tubing only. (Consult your local HA agent for longer distance requirements.)
Exhaust Tubing	50 Ft (15m) 1/4" OD x 3/16" ID Polypropylene. Longer distances possible with larger ID exhaust tubing
Display	20 character vacuum fluorescent status, alarm, and power LEDs
Keypad	16 key, sealed membrane style
Local Alarm indication	Audible and visual (LED) per point
Relay Outputs	Relay contacts (500 mA minimum) 2 Amps @120VAC, form C contacts. Programmable low and high levels, maintenance, watch dog, energized or deenergized, latching or nonlatching
Current Loop Outputs (per Point)	4-20 mA isolated (optional) (2-4 mA range available for fault indicators)
Serial Output	RS232 serial printer output (optional)
Serial Communications	RS232, RS422, and RS485 (all optional)
Additional Protocols supported	LonWorks®, (LonMark® compliant optional) Profibus (via 4-20mA to L2 bus optional) ~ Supported Intellution, FIX 32, Wonderware, InTouch, Cimplicity
Operating Temperature	50° to 140°F (10° to 40°C)
Shipping Weight	55 lbs.
Operating Voltages	100/110 VAC @ 50/60 Hz, 230 VAC @ 50/60 Hz
Power Consumption	≈3 Amps @ 110 volts ≈2 Amps @ 230 volts

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Honeywell Analytics Lines of Business



Commercial

Vulcain-brand gas detection from stand-alone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Industrial

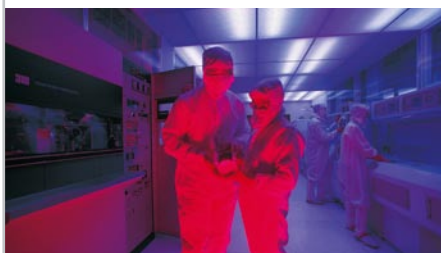
Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



Find out more

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High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

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