



**CM4-P Pyrolyzing gas monitor for continuous detection of Nitrogen Trifluoride**

# CM4-P Pyrolyzing Gas Monitor for $\text{NF}_3$



## Feature

- Continuous Monitoring on 4 Points
- Chemcassette Technology
- Integral Freon® Scrubbers
- Analog and Serial Outputs
- 300'(90m) Sampling Distance
- Table, Wall or Rack Mount Versions
- High Temperature Pyrolysis
- Coiled Quartz Pyrolyzer Design
- Integral Audio and Visual Alarms

## Benefit

- Total surveillance all the time
- Reliable, interference free method provides physical evidence of events
- Scrubs commonly used Freons before pyrolysis ensuring only  $\text{NF}_3$  is detected
- Permits easy installation into virtually all annunciation and shutdown systems
- Monitors can be positioned conveniently with minimal fab intrusion
- Flexible to meet any requirement
- Ensures complete conversion of  $\text{NF}_3$
- Heating element does not contact sample, ensuring complete pyrolysis
- Easily identifies all events

**CM4-P provides reliable, continuous detection of Nitrogen Trifluoride. The unit features an integral pyrolyzer that converts  $\text{NF}_3$  to Hydrogen Fluoride for detection on the mineral acids Chemcassette®. The unit features a variety of outputs. Chemcassette sensors provide 4 weeks or more of uninterrupted surveillance.**

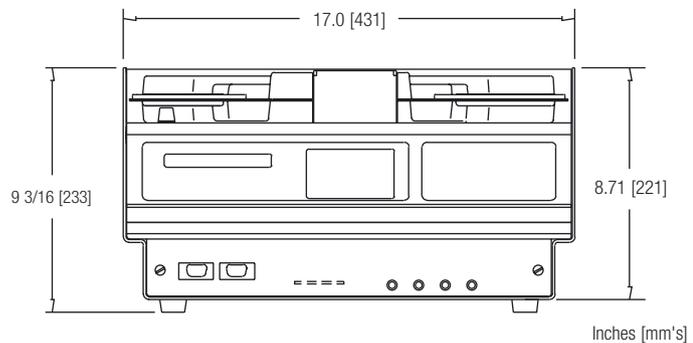
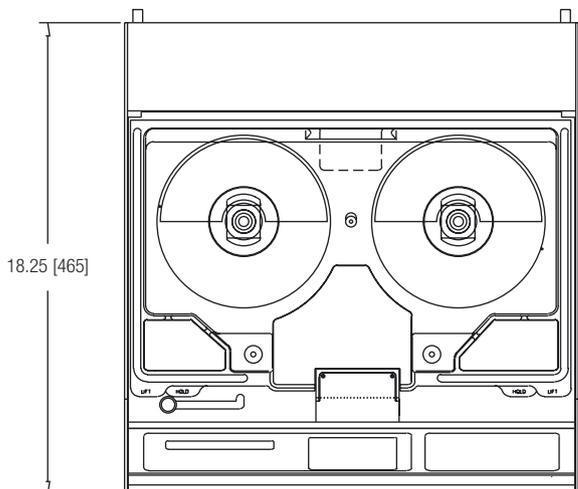


# General Specification



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<b>Detection Technique</b>	Chemcassette® Technology via pyrolysis to HF	
<b>Gases Available</b>	Nitrogen Trifluoride	
<b>CM4-P Detectable Gases</b>		<b>Range</b>
	Nitrogen Trifluoride (NF <sub>3</sub> )	0-50 ppm
	LDL	1.0 ppm
<b>Monitoring Points</b>	Four	
<b>Sampling Distance</b>	300 Ft (90m) 1/4" OD X 3/16" ID FEP grade Teflon® tubing only (Consult your local HA agent for longer distance requirements.)	
<b>Exhaust Tubing</b>	50 Ft 1/4" OD x 3/16" ID Polypropylene Longer distances possible with larger ID	
<b>Display</b>	20 character vacuum fluorescent status, alarm, and power LED's	
<b>Keypad</b>	16 key, sealed membrane style	
<b>Local Alarm Indication</b>	Audible and visual (LED) per point	
<b>Relay Outputs</b>	Relay contacts (500m A minimum) 2 Amps @120VAC, form C contacts. Programmable low and high levels, maintenance, watch dog, energized or de-energized, latching or nonlatching	
<b>Current Loop Outputs (per Point)</b>	4-20mA isolated, 4 Individual (optional) 4-20mA non-isolated, 4 individual (optional) 2-4mA range available (for fault indications)	
<b>Serial Output</b>	RS232 serial printer output (optional)	
<b>Serial Communications</b>	RS232, RS422, and RS485 (all optional)	
<b>Additional Protocols supported</b>	LonWorks®, (LonMark® compliant) Profibus (via 4-20mA to L2 bus)	
<b>GUIs Supported</b>	Intellution FIX-32, Wonderware, InTouch	
<b>Operating Temperature</b>	50° to 104° F (10° to 40°C)	
<b>Weight</b>	55 lbs (25 Kg)	
<b>Initial Warmup</b>	< 10 minutes	
<b>Operating Voltages</b>	100/110 VAC @ 50/60 Hz 230 VAC @ 50/60 Hz	
<b>Power Consumption</b>	5 Amps @ 110 volts (approximately) 4 Amps @ 230 volts (approximately)	



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.

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

### Customer business centre

#### Europe and the rest of the world

Honeywell Analytics AG  
 Wilstrasse 11-U11  
 CH-8610 Uster  
 Switzerland  
 Tel: +41 (0)44 943 4300  
 Fax: +41 (0)44 943 4398  
[sales@zelana.co.uk](mailto:sales@zelana.co.uk)

### Customer business center

#### Americas

Honeywell Analytics Distribution, Inc.  
 400 Sawgrass Corporate Pkwy  
 Suite 100  
 Sunrise, FL 33325  
 USA  
 Tel: +1 954 514 2700  
 Toll free: +1 800 538 0363  
 Fax: +1 954 514 2784  
[sales@zelana.com](mailto:sales@zelana.com)

[www.honeywell.com](http://www.honeywell.com)



**IN-USA**

The IN-USA range of microprocessor controlled analyzers detect trace amounts of ozone (O<sub>3</sub>) 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-programmed into the instrument.