



**Portable, flexible and interference free toxic gas detection**

# ChemKey TLD



## Advantages

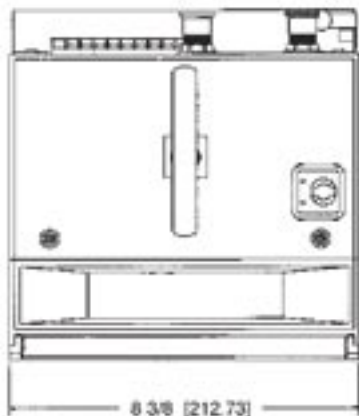
- Portable, flexible and interference free toxic gas detection
- Battery operated or line powered
- Exclusive Chemcassette® detection is gas specific, sensitivity to ppb levels with physical evidence
- Low maintenance and no dynamic gas calibration
- Variety of signals outputs to meet monitoring needs
- Over 50 gases available, ChemKey allows switching target gases easily

## Applications

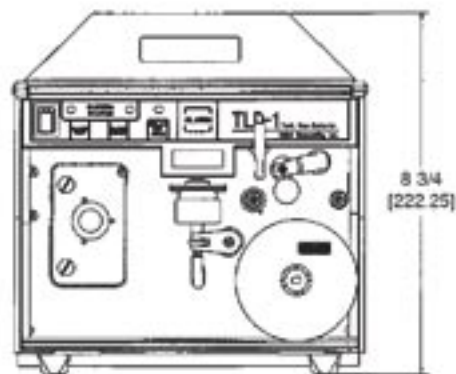
- Emergency response teams
- R & D projects
- Temporary facility monitoring
- Industrial hygiene surveys
- Spill remediation
- Equipment maintenance crews

## Option Available

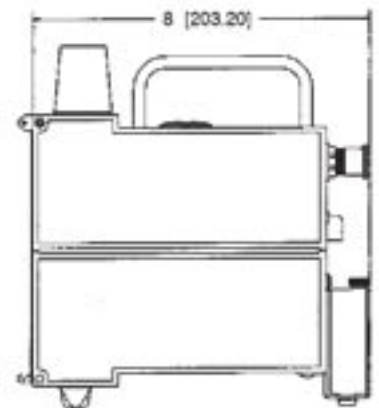
- Strip chart recorders



Top View



Front View



Side View

# Technical Specification



Specification	
<b>Detection Technique</b>	Chemcassette® Detection System
<b>Alarm Point</b>	ChemKey Gas Selection System provides multiple alarm set points
<b>Response Time</b>	As fast as 10 seconds
<b>Alarm Indication</b>	Audio and visual alarms
<b>Signal Outputs</b>	SPDT concentration alarm relay; SPDT instrument fault relay (failsafe); 4-20mA; digital display
<b>Operating Temperature Range</b>	32° to 104° F; 0° to 40° C
<b>Power Requirements</b>	Battery (Rechargeable, sealed lead-acid) chargers at 115 VAC, 50/60 Hz or 230 VAC, 50/60 Hz available
<b>Dimensions</b>	61/2"(H) x 83/8"(W) x 7"(D); (16.5 x 21.2 x 17.7 cm)
<b>Weight</b>	Approximately 9 pounds; (4.1 kg)
Detectable gases	Range
<b>Amines</b>	
Ammonia (NH <sub>3</sub> )*	2.6-75.0 ppm
Ammonia (NH <sub>3</sub> )-II	2.6-75.0 ppm
Methylene Dianiline (MDA)	3-60 ppb
n-Butylamine (n-BA)	0.4-12.0 ppm
p-Phenylene Diamine (PPD)	2-60 ppb
Toluene Diamine (TDA)	4-60 ppb
Trimethylamine (TMA)	1.1-30.0 ppm
<b>Diisocyanates</b>	
CHDI, HDI, HMDI, IEM, IPDI, MDI, NDI, PPDI, TDI, TMDI, TMXDI, XDI	2-60 ppb
<b>Hydrazines</b>	
MMH*	21-600 ppb
N <sub>2</sub> H <sub>4</sub>	20-300 ppb
UDMH*	53-1500 ppb
<b>Hydrides</b>	
Arsine (AsH <sub>3</sub> )	15-150 ppb
Diborane (B <sub>2</sub> H <sub>6</sub> )	31-300 ppb
Disilane (Si <sub>2</sub> H <sub>6</sub> )	1.5-15 ppm
Germane (GeH <sub>4</sub> )	141-600 ppb
Hydrogen Selenide (H <sub>2</sub> Se)	20-150 ppb
Phosphine (PH <sub>3</sub> )	32-900 ppb
Silane (SiH <sub>4</sub> )	0.5-15 ppm
Stibine (SbH <sub>3</sub> )	20-300 ppb
tert-Butylarsine (TBA)	15-150 ppb
tert-Butylphosphine (TBP)	60-900 ppb
<b>Hydrogen Cyanide (HCN)*</b>	1.1-30.0 ppm
<b>Hydrogen Sulfide (H<sub>2</sub>S)</b>	1.1-30.0 ppm
<b>Hydrogen Sulfide (H<sub>2</sub>S)</b>	Low Level 1-90 ppb
<b>Mineral Acids</b>	
Hydrogen Bromide (HBr)	0.3-9.0 ppm
Hydrogen Chloride (HCl)	0.5-15.0 ppm
Hydrogen Fluoride (HF)	0.6-9.0 ppm
Nitric Acid (HNO <sub>3</sub> )	0.2-6.0 ppm
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )*	26-750 ppb
<b>Oxidizers</b>	
Bromine (Br <sub>2</sub> )	11-300 ppb
Chlorine (Cl <sub>2</sub> )*	0.1-3.0 ppm
Chlorine (Cl <sub>2</sub> )-II	0.5-1.5 ppm
Chlorine Dioxide (ClO <sub>2</sub> )	11-300 ppb
Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> )	0.1-3.0 ppm
Nitrogen Dioxide (NO <sub>2</sub> )	0.3-9.0 ppm
Ozone (O <sub>3</sub> )	31-300 ppb
<b>Phosgene (CoCl<sub>2</sub>)</b>	11-300 ppb
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	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.

### Find out more

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

### Customer business centre

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**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.