

# Gas Detection Selection Guide

Global Protection Solutions for Your People and Facilities



## The Det-Tronics Difference

Det-Tronics gas detectors and systems are painstakingly designed, tested and approved to rigorous gas detector performance tests prescribed by Factory Mutual (FM) and Canadian Standards (CSA) in North America, and ATEX and CENELEC standards in the European Union (EU).

The benefit to our customers is that products compliant to these new performance standards ensure the detector and associated electronics are capable of delivering the actual field performance expected by the user.

For years, understanding the fine print in a gas detector approval certificate was critical to knowing what the benefit was. Det-Tronics has taken a customer-focused approach to product approvals, and now leads the industry with performance tested and approved hazardous gas detection system solutions, to the benefit of our customers the world over.

## Gas Detection Technologies

### INFRARED (IR)

Across the globe, optical IR gas detection is now the preferred detection technology for early warning of flammable hydrocarbon gas leaks.



The Pointwatch family of point IR gas detectors lead the industry in quality,

performance, and lowest cost of ownership. Our new Open-Path Eclipse IR gas detection system



provides large-area, hydrocarbon gas leak protection.

Owners will achieve the ultimate in fast and reliable flammable leak detection combining Det-Tronics point IR and Open Path Eclipse IR systems at their facility.

### CATALYTIC BEAD

Det-Tronics has been manufacturing catalytic gas sensor technology for well over a decade, and is still going strong.

Utilizing our own high-quality, platinum pellistors (beads) and 316 stainless steel housings, the Combustible Gas Sensor (CGS) series sensors deliver reliable flammable gas detection complete



with excellent poison-resistance. A variety of CGS transmitter

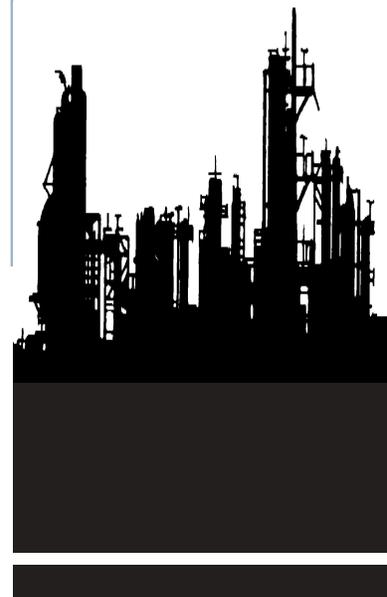
options are available to meet your system needs.

The CGS sensor is a must for applications such as battery rooms and other areas where hydrogen gas is expected to be present.

production



refining and processing



## ELECTROCHEMICAL (EC)

Det-Tronics electrochemical gas sensors deliver the most reliable toxic/oxygen gas detection technology available.

A wide variety of EC sensors for early detection of toxic gases are offered. Depending on your system needs, either the explosion-proof C706x toxic sensor family or the loop-powered, intrinsically-safe TXL gas detectors can easily be installed at your facility.

In addition, a number of complimentary field transmitters and controllers are available for both stand-alone and system configurations.

Key applications protected by Det-Tronics EC detectors include industrial chemical plants, oil/gas facilities, offshore platforms, wastewater plants, semiconductor facilities and industrial hygiene protection.

transportation and storage

## TRANSMITTERS & CONTROLLERS

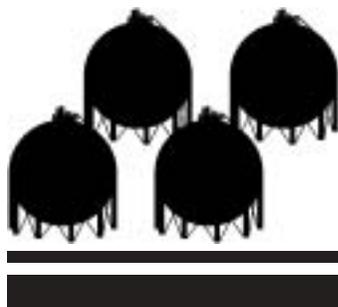
Global customers require a wide range of alarm signals for proper annunciation and hazard mitigation.



Det-Tronics delivers a number of gas transmitter options, including our U9500 Infiniti, TXL, and THZ products,

and each is compatible with a wide range of sensing technologies.

For indication and alarm at remote locations, our R8471 series and DMC gas controllers provide a comprehensive and flexible control solution.



## Systems

### FIRE AND GAS

Det-Tronics has established a tradition of excellence in the gas and fire systems market.

Our project engineering group integrates a wide range of gas and fire detection technologies into complete detection and mitigation systems designed, built, tested, and installed per your specification.

Our premier solution is aptly named the Eagle Quantum Premier system, a globally approved, NFPA-72 compliant, fire and gas detection and suppression releasing system.

Project engineering capabilities include design, build, test and commissioning services.



end uses

## Accessories

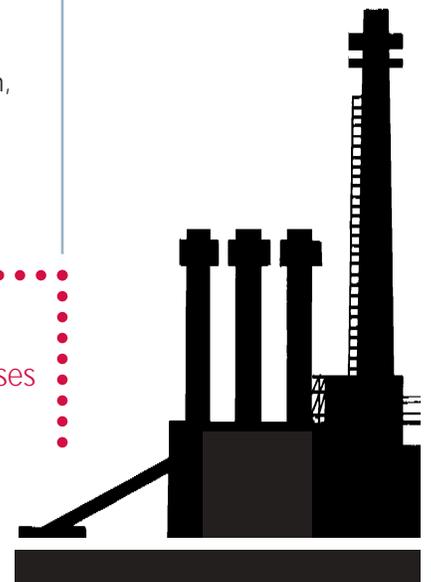
### ACCESSORIES

Challenging applications abound in the global gas detection market.

Det-Tronics offers a wide range of gas sensor accessories, including direct duct mounting kits, air sample extraction systems and components, and sensor protection accessories.



High quality, weatherproof enclosures, approved 24 VDC power supplies and traceable accuracy calibration gas kits round out our line of gas detection system accessories.



# Gas Detection Systems Feature/Benefit Tables

Sensor Technology & Product Model		Vapor Type											
		Flammables		Toxics									
		Combustible Hydrocarbons	Hydrogen	Hydrogen Sulfide	Carbon Monoxide	Oxygen	Chlorine	Chlorine dioxide	Sulfur Dioxide	Nitrogen Dioxide	Ammonia	Phosphine	Hydrogen Cyanide
Infrared	PIR9400 Pointwatch	Y	N										
	PIRECL Eclipse	Y	N										
	PIRVOL	Y	N										
	OPECL Open Path	Y	N										
	Catal	CGS Series	Y										
Electro-chemical	TXL-Series			Y	Y	Y	Y	Y	Y	Y	Y	Y	
	C706x Series			Y	Y	Y	Y	N	Y	Y	N	N	

		Transmitter Feature								
		Sensor compatibility	2-wire type, loop-powered	3-wire Type	Optional on-board relay	Visual Display	Non-intrusive calibration	RS-485 output	EQ Premier compatible	HART communication
Transmitter	PIRECL	Infrared only	N	Y	Y	Y	Y	Y	Y	
	OPECL	Infrared only	N	Y	Y	Y	Y	Y	Y	
	PIR9400	Infrared only	N	Y	Requires U9500H		Y	N		
	Model 505	Catalytic only	N	Y	N	N	N	N		
	C706X Series	Electrochemical	Y	N	N	N	N	N		
	TXL Series	Electrochemical	Y	N	N	Y	Y	N		
	U9500 Series	All	N	Y	Y	Y	Y	N		
	THZ Series	All	N	Y	N	Y	N	N		

		Feature/Benefit									
		Sensor compatibility	# of channels	Visual Display	Bar Graph Display	Optional relay contact outputs	Optional analog signal output	Calibration function	Wall mount enclosure options	Rack-mount or panel mount options	RS-485 output
Controller Model	R8471A	Catalytic only	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471B	H2S	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471C	Oxygen	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471D	Chlorine	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471E	Carbon Monoxide	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471F	Sulfur Dioxide	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471G	Nitrogen Dioxide	1	Y	Y	Y	Y	Y	Y	Y	N
	R8471H	PIR only	1	Y	Y	Y	Y	Y	Y	Y	N
	DMC	All	1 to 36	Y	N	Y	Y	N	Y	panel mount only	Y
	EQ Premier	All	up to 246	Y	N	Y	N	Y	Y	Y	Y

Contact Det-Tronics for the solution to your gas detection requirements.