

# INNOVA™

## Portable Gas Monitors

### For one, two, three or four gases

**Innova™**  
(Standard Multi Gas)

**Innova FV™**  
(Fuel Vapor)

**Innova LS™**  
(Land Surveyor)

**Innova SV™**  
(Soil Vapor)

**Innova XT™**  
(Transformer)



Distributed By

GasTech Australia Pty Ltd  
24 Baretta Rd  
Wangara Western Australia 6065  
Tel 1800 999 902  
Fax 1800 999 903  
<http://www.gastech.com.au>

**GASTECH**  
AUSTRALIA



# INNOVA™

## Portable Gas Monitors for one, two, three or four gases

Thermo GasTech's Innova Series of portable gas monitors are designed to protect workers from hazardous gases in confined spaces and other industrial work sites. The Innova features a powerful built-in pump, rugged electronics for the harshest conditions, simple operation, quick calibration, and robust sensors for long life. The Innova Series Portable Gas Monitors are available in several different gas combinations.

### Optional Accessories

- Data logging retrieval kit
- Storage case
- Remote buzzer
- Float probe
- Auxiliary hydrophobic filter
- 30" probe with dust filter
- Moisture trap
- Dilution fitting
- Extra length hoses, up to 100 ft. for sample draw pump
- Confined space kit
- Calibration kit
- Battery charger (220 VAC, 115 VAC & 12 VDC)

### Features

- Easy to use one-button calibration
- Peak, STEL, and TWA readings displayed on request
- Interchangeable 4 -"D" NiCad batteries (12 hrs) or alkaline (24 hrs)
- Dual protection if liquid is aspirated
- Built-in pump meets federal regulations for pretesting confined spaces & remote areas
- Built-in datalogger
- Bright LED array (for alarm conditions), 180° viewable, plus glow-in-the-dark buttons
- RF resistant
- Five combustible gas ranges from super sensitive 0-1,000ppm to 0-100% by volume
- Water-resistant, rugged high impact Xenoy® housing
- Configurable for one, two, three, or four plug-in sensors

*Xenoy® is a registered trademark of GE Plastics*

# SPECIFICATIONS

## Sensors:

Combustibles: Catalytic compensated

Electrochemical: Cl<sub>2</sub>, CO, HCN, H<sub>2</sub>S, NH<sub>3</sub>, NO, NO<sub>2</sub>, O<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>

Methane (Innova LS): Thermal Conductivity

## Sampling Methods:

Sample-draw, internal pump

## Response Time:

90% in 30 seconds

90% in 50 seconds (HCN)

90% in 60 seconds (NH<sub>3</sub>)

## Accuracy:

LEL: ± 5% of reading

ppm, Cl<sub>2</sub>, CO, HCN, H<sub>2</sub>S, NH<sub>3</sub>, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>: ±10% of reading

O<sub>2</sub>: ± 5% Vol.

## Repeatability:

LEL: ± 2% of reading

ppm, Cl<sub>2</sub>, CO, HCN, H<sub>2</sub>S, NH<sub>3</sub>, NO, NO<sub>2</sub>, PH<sub>3</sub>, SO<sub>2</sub>: ± 5% of reading

O<sub>2</sub>: ± 0.2% Vol.

## Operating Temperature:

-4°F to 113°F (-20°C to 45°C)

## Humidity Range:

0 to 95% RH, non-condensing

## Alarms:

- user defined, programmable alarm levels
- latching or self-resetting modes
- low battery, low flow, or sensor failure
- two levels of alarm with audible & visual indication to warn of unsafe gas levels

## LCD Display:

- real-time gas concentrations
- date & time
- battery capacity
- alarm set points
- backlight on demand
- TWA, STEL, minimum & maximum readings

## Power Sources:

Four "D" alkaline or NiCd batteries

## Battery Life:

Alkaline: 24 hrs at 68°F (20°C)

NiCd: 12 hrs at 68°F (20°C)

## Dimensions:

10 in. (254 mm) L x 6 in. (152 mm) H x 5 in. (127 mm) W

## Weight:

Approximately 5 lbs. (2.25 kg)

## Casing Materials:

High impact, chemical, and RF resistant Xenoy<sup>®</sup> (polycarbonate-polyester) plastic

## Splash Resistance:

Water-resistant, gasketed housing

## Approvals:

CSA Certified Intrinsically Safe to U.S. and Canadian Standards, Hazardous Locations Class I, Groups A, B, C & D

LCIE Certified, EEX ia d IIC T4 Hazardous Locations

## Warranty:

One year (materials and workmanship)

## Innova™ – One, Two, Three, or Four Gases

This multi-gas internal pump monitor is ideal for pre-testing confined spaces in refineries, wastewater treatment plants, fire departments, offshore oil wells, fish processing plants, utilities, tanneries, etc. This unit can be configured to monitor up to four gases in several combinations, including the detection of hydrocarbons in the % Vol., LEL or ppm range, oxygen content, and a choice of one or two toxics: Ammonia (NH<sub>3</sub>), Carbon Monoxide (CO), Chlorine (Cl<sub>2</sub>), Hydrogen Cyanide (HCN), Hydrogen Sulfide (H<sub>2</sub>S), Nitrogen Dioxide (NO<sub>2</sub>), Nitric Oxide (NO), Phosphine (PH<sub>3</sub>), or Sulfur Dioxide (SO<sub>2</sub>).

- Monitors hydrocarbons in LEL or PPM ranges as a standard
- Microprocessor electronics and convenient top-mounted switches make operation and calibration simple
- Easy replacement of batteries and sensors

## Innova FV™ – Fuel Vapor

Innova FV is designed to measure combustible fuel vapors in aircraft wing tanks and fuel storage areas. This instrument monitors for oxygen content and hydrocarbons in either percent LEL or PPM.

- Extra sensitive PPM combustible range (0-1000 ppm) in 10 ppm increments
- Humidity resistant, combustible sensor is not affected by changes in relative humidity (RH)
- Calibrated with hexane to represent fuel vapors

## Innova LS™ – Land Surveyor

The Innova LS is designed to test for methane and other gases in landfills, vaults, trenches, bar holes, vents, and other applications. This multi-gas monitor detects methane in the ppm, % LEL, and % Vol. ranges, oxygen, and one toxic gas (either carbon monoxide or hydrogen sulfide).

- Monitoring of methane in two optional range sets
- **Autorange** adjusts to the correct range as methane concentrations increase, allowing hands-free operation.

## Innova SV™ – Soil Vapor

The INNOVA SV is designed for applications such as soil remediation and bar-hole monitoring. Designed to detect total hydrocarbons (including methane) in percent LEL or PPM, and includes unique operation mode selection for non-methane hydrocarbons.

- Dual mode operation can distinguish between methane or natural gas and other volatile combustibles.
- Extra sensitive PPM combustible range (0 - 1000 ppm) in 10 ppm increments
- Humidity resistant combustible sensor is not affected by changes in the relative humidity (RH)

## Innova XT™ – Transformer

Innova XT tests for the presence of combustible gases in the inert headspace of power transformers. It offers significant time and cost savings over the traditional dissolved gas analysis. The test is simple, as results are given in real-time. One instrument is able to test many transformers. This unit can monitor hydrocarbons in percent LEL or PPM, as well as oxygen content.

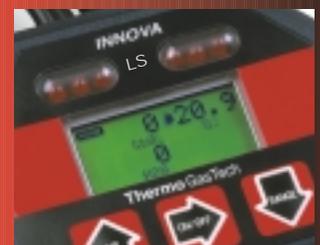
- Extra sensitive detection in PPM or LEL is standard
- Significant cost savings over dissolved gas analysis (DGA)
- All necessary accessories (dilution fitting, probe, and two tedlar bags) come standard with each unit



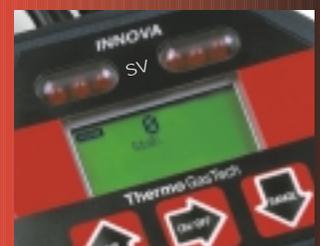
**Innova**  
(Confined Space Monitor)



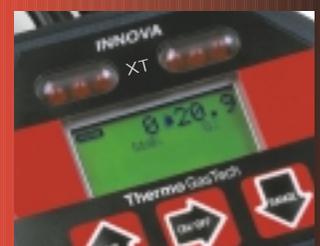
**Innova FV**  
(Fuel Vapors)



**Innova LS**  
(Landfill Monitor)



**Innova SV**  
(Soil Vapor Monitor)



**Innova XT**  
(Transformer Monitor)

# RANGE OF GASES DETECTED

Gas	Formula	Standard Range	ST	FV	LS	SV	XT
Ammonia	NH <sub>3</sub>	0 to 100 ppm in 1 ppm increments	X				
Carbon Monoxide	CO	0 to 300 ppm in 1 ppm increments	X		X		
Chlorine	Cl <sub>2</sub>	0 to 10.0 ppm in 0.1 ppm increments	X				
Combustible	HC	0 to 100 % LEL in 1% increments	X				
		0 to 1,000 ppm in 10 ppm increments		X		X	
		0 to 10,000 ppm in 20 ppm increments	X				X
Hydrogen Cyanide	HCN	0 to 30 ppm in 1 ppm increments	X				
Hydrogen Sulfide	H <sub>2</sub> S	0 to 200 ppm in 1 ppm increments	X		X		
Methane	CH <sub>4</sub>	0 to 5% Vol. in 0.1% increments*	X		X		
		0 to 100% Vol. in 1% increments			X		
		0 to 10,000 ppm in 20 ppm increments	X		X		
		0 to 100 % LEL in 1% increments	X		X		
Nitric Oxide	NO	0 to 100 ppm in 1 ppm increments	X				
Nitrogen Dioxide	NO <sub>2</sub>	0 to 9.9 ppm in 0.1 ppm increments	X				
Oxygen	O <sub>2</sub>	0 to 30.0% Vol. in 0.1% increments	X	X	X		X
Phosphine	PH <sub>3</sub>	0 to 3.00 ppm in 0.1 ppm increments	X				
Sulfur Dioxide	SO <sub>2</sub>	0 to 10.0 ppm in 0.1 ppm increments	X				

\*Specify range at time of order  
 (Note: Specify up to two toxic gas sensors on the Standard INNOVA monitor)

## Thermo GasTech Innova model name designations

- Innova ST** Standard Monitor
- Innova FV** Fuel Vapor Monitor
- Innova LS** Land Surveyor Monitor
- Innova SV** Soil Vapor Monitor
- Innova XT** Transformer Monitor

# ACCESSORIES AND REPLACEMENT PARTS

## Optional Accessories:

- Data logging retrieval kit
- Storage case
- Remote audible alarm
- Float probe
- Hydrophobic filter
- 30" probe with dust filter
- Moisture trap
- Dilution fitting
- Extra length hoses, up to 100 ft. for sample draw pump
- Confined space kit
- Calibration kit
- Battery charger (220 VAC, 115 VAC, 12 VDC)

## Calibration Kits:

- All gas monitoring instruments must be calibrated on a regular basis to ensure proper calibration and maximum safety. Calibration kits include regulator, tubing, and all other accessories needed to perform calibrations.

## Data logging:

- The "Innova View" optional datalogging package is a user friendly Windows® based software program that allows downloading of logged data, and can also upload new configuration settings to the Innova. The Innova instrument continuously logs data at user-defined intervals, and can be flagged with user, operator, and/or location identification. In addition to gas readings, all alarms, PEAK, STEL, and TWA readings and calibration-related events are stored. The Innova View software is easy to use and allows files to be archived in spreadsheet format.

*Windows® is a registered trademark of Microsoft Corporation*

Innova Optional Accessories	
Product Number	Product Description
20-0650	Carrying case
49-2150	Battery Charger, 115 VAC
49-2149	Battery Charger, 230 VAC
49-2151	Battery Charger, 12 VDC
52-2033	Remote audible alarm with lapel clip
52-2033-01	Remote audible alarm with 20' cord and magnet
80-0187-04	30" probe with dust filter
80-0211	Moisture trap
80-0224	Hydrophobic Filter
80-0405	1:1 dilution fitting
80-0505	5' polyurethane hose
80-0511	10' polyurethane hose
80-0516	15' polyurethane hose
80-0520	20' polyurethane hose
80-0525	25' polyurethane hose
80-0530	30' polyurethane hose
80-0550	50' polyurethane hose
80-0599	100' polyurethane hose
81-1176	Float Probe with hose
82-5071	Data retrieval kit



Storage Case  
20-0650



Hydrophobic filter  
80-0224



Moisture Trap  
80-0211



Float Probe  
81-1176



30" probe with dust filter  
80-0187-04



Data Retrieval Kit & Manual  
82-5071

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