Product Overview

Innova™
(Standard Multi Gas)

Innova FV™
(Fuel Vapor)

Innova LS™
(Land Surveyor)

Innova SV™
(Soil Vapor)

Innova XT™
(Transformer)

Innova™
Portable gas monitors
For one, two, three, or four
gases

Analyze • Detect • Measure • Control™

Thermo
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The Innova™ Portable Gas Monitors

Thermo Electron'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.

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_3), carbon monoxide (CO), chlorine (Cl_2), hydrogen cyanide (HCN), hydrogen sulfide (H_2S), nitrogen dioxide (NO_2), nitric oxide (NO), phosphine (PH_3), or sulfur dioxide (SO_2).

- Monitors hydrocarbons in LEL or ppm ranges
- Convenient top-mounted switches make operation and calibration simple
- Easy replacement of batteries and sensors
- One-button calibration

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 (0-1,000 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
- Dual mode operation can distinguish between methane or natural gas and other volatile combustibles

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.

- Dual mode operation can distinguish between methane or natural gas and other volatile combustibles
- Extra sensitive ppm combustible range (0-1,000 ppm) in 10 ppm increments
- Humidity resistant combustible sensor is not affected by changes in 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.

- Detection in ppm or LEL is standard
- Significant cost savings over dissolved gas analysis (DGA)
- All necessary accessories (dilution fitting, probe, and tedlar bag) come standard with each unit

Gas	Formula	Standard Range	ST	FV	LS	SV	XT
Ammonia	NH_3	0 to 100 ppm in 1 ppm increments	X				
Carbon monoxide	CO	0-300 ppm in 1 ppm increments	X		X		
Chlorine	Cl_2	0 to 10.0 ppm in 0.1 ppm increments	X				
Combustible	HC	0 to 100% LEL in 1% increments	X	X	X	X	X
		0 to 1,000 ppm in 10 ppm increments		X		X	
		0 to 100% Vol. in 1% increments			X		
		0 to 10,000 ppm in 20 ppm increments	X	X	X		X
Hydrogen cyanide	HCN	0 to 30 ppm in 1 ppm increments	X				
Hydrogen sulfide	H_2S	0 to 200 ppm in 1 ppm increments	X		X		
Methane	CH_4	0 to 5% Vol. in 0.1% increments (specify range with order)	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_2	0 to 10.0 ppm in 0.1 ppm increments	X				
Oxygen	O_2	0 to 30.0% Vol. in 0.1% increments	X	X	X		X
Phosphine	PH_3	0 to 3.00 ppm in 0.1 ppm increments	X				
Sulfur dioxide	SO_2	0 to 10.0 ppm in 0.1 ppm increments	X				

Accessories and Replacement Parts

Optional Accessories
- Data logging retrieval kit
- Storage case
- Remote audible alarm
- Hydrophobic filter
- 30" probe with dust filter
- Moisture trap
- Dilution fitting
- Extra length hoses, up to 100 feet 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

Hydrophobic Filter

Moisture Trap

Storage Case

30" Probe with Dust Filter

Innova

Model Name Designations:
ST   Standard monitor
FV   Fuel Vapor monitor
LS   Land Surveyor monitor
SV   Soil Vapor monitor
XT   Transformer monitor

Sensors
- Combustibles: Catalytic compensated
- Cl_2, CO, HCN, H_2S, NH_3, NO, NO_2, O_2, PH_3, SO_2: Electrochemical
- Methane (Innova LS): Thermal conductivity

Sampling Method
- Sample-draw, internal pump

Response Time
- 90% in 30 seconds
- 90% in 50 seconds (HCN)
- 90% in 60 seconds (NH_3)

Accuracy
- LEL: $\pm$5% of reading ppm, Cl_2, CO, HCN, H_2S, NH_3, NO, NO_2, PH_3, SO_2: $\pm$10% of reading
- O_2: $\pm$0.5% Vol.
- % by Vol. CH_4 $\pm$10% of reading

Repeatability
- LEL: $\pm$2% of reading ppm, Cl_2, CO, HCN, H_2S, NH_3, NO, NO_2, PH_3, SO_2: 1% by Vol. CH_4 $\pm$5% of reading
- O_2: $\pm$0.2% Vol.

Operating Temperature
-4ºF to 113ºF (-20ºC to 45ºC)

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
- Back light on demand
- TWA, STEL, minimum & maximum readings

Power Sources
Four "D" alkaline or NiCd batteries

Battery Life (20ºC/68ºF)
- Alkaline: 24 hours at 68ºF (20ºC)
- NiCd: 12 hours at 68ºF (20ºC)

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® (polycarbonate-polyester) plastic

Splash Resistance
Water-resistant, gasketed housing

Approvals
- Certified intrinsically safe for Class I, Groups A, B, C, & D to U.S. and Canadian standards
- LCIE certified, EEx ia IIC T4 hazardous locations

Warranty
- One year (materials and workmanship)

About Thermo

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LITINNOVA 3.03

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