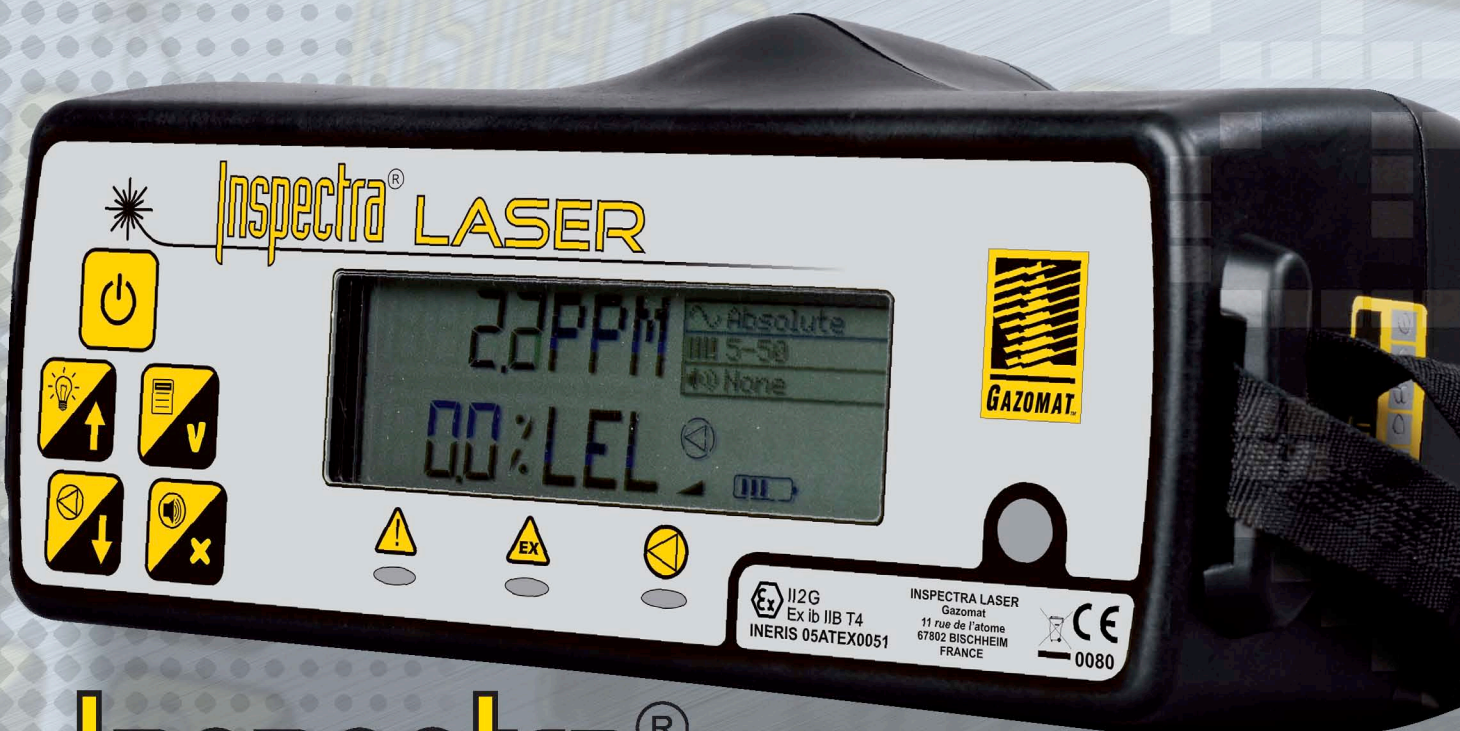


GAZOMAT™







A company of T.D. Williamson Inc.

Natural gas network survey and gas leak detection



Inspectra® LASER

*Laser Technology
applied to Methane Detection*

-  Total selectivity to methane
-  1 ppm sensitivity
-  Measurement range extending from 1 ppm to 100 % gas volume
-  Instant response time
-  Reduced maintenance
-  Explosion-proof to ATEX certification

Pat. No. ZL 02829531.5

ISO 9001
BUREAU VERITAS
Certification



Maintenance
of pressurized
pipelines

USING LASER SPECTROSCOPY TECHNOLOGY, THE **INSPECTRA® LASER** DEVELOPED BY GAZOMAT IS A HIGH-PERFORMANCE METHANE DETECTOR. THIS DEVICE MEETS **ATEX** STANDARDS FOR USE IN EXPLOSIVE AREAS AND MAKES IT POSSIBLE TO DETECT METHANE LEAKS AND DETERMINE THEIR LOCATION WITH PRECISION. IT IS A TRULY EFFICIENT TOOL FOR GAS PROFESSIONALS.

TOTAL SELECTIVITY TO METHANE

The measuring chamber of the **INSPECTRA® LASER** is fitted with a laser diode adjusted to the absorption wavelength specific to methane. In the presence of methane molecules, the laser beam is partially absorbed. Thus, only methane is detected. The device is insensitive to other hydrocarbon gases, chemicals, water vapours and pollution that may be present in the atmosphere.

SENSITIVITY OF 1 PPM

The pass length of the Herriot multipass cell enables the detector to reach sensitivity on the order of the ppm.

UNIQUE MEASURING PRECISION

- **3 measurement scales:**
 - PPM scale from 0 to 10,000 ppm
 - LEL scale from 0.1 % to 100% LEL CH₄*
 - GAS scale: from 0.1 % to 100 % gas volume
- **Double measurement range displayed simultaneously on an LCD screen with automatic switchover from one scale to the other:**
 - 0 ppm-10,000 ppm and 0.1 %-100 % LEL or
 - 0 ppm-100 % gas volume and 0.1%-100 % LEL
- **Very short response time**
- **Two sampling speeds: 45 l/hour and 60 l/hour**

* The Inspectra Laser is not an explosimeter, it only measures the LEL of methane.



EASY TO USE

- Automatic self-test at start-up
- Wide backlit LCD screen
- Visual and audio indicators (battery charge level, pump status, alarm on/off, risk of explosion etc.)
- Access to standard and advanced functions with the 5-key keypad and a scrolling menu.
- Software dialogue window
- Choice of measurement modes: absolute concentration or relative concentration (running mean).
- Reduced maintenance
- Long autonomy: 8 hours at 20 °C

SCOPE OF APPLICATION

- Survey of natural gas networks (methane only)
- Detecting and locating gas leaks (methane only)
- Monitoring methanation plants
- Monitoring momentary leaks of methane on natural gas production platforms and natural-gas compression plants.

SAFE USE IN EXPLOSIVE ATMOSPHERES

both inside and outside of buildings, with ATEX certification



ACCESSORIES AND ADD-ONS

- 1) A long sampling rod with its filter fitted handle.
- 2) A telescopic sampling rod with suction-cup.
- 3) Water-repellent and dust-proof filters (not shown).
- 4) A 230 VAC charger.
- 5) A rechargeable battery pack.
- 6) A Gas Check kit (optional) comprising a flow regulator and a 34 liter canister containing a 10% methane concentration.
- 7) A reinforced storage case for the **INSPECTRA® LASER** and its accessories.

Please note: A 12 VDC charger is available as an option (not shown).



TROLLEY:

- This accessory fits on by simply connecting the hose to the detector, for taking samples directly from the ground surface with no risk of loss or dilution in the air.



GAZOMAT TEST BENCH

- Automatically tests the functioning of the **INSPECTRA® LASER** with different concentrations of methane.
- A test report and a test certificate are generated.
- Provided with reference gas bottles, a laptop PC and its dedicated software.



NEW

GPS TABLET SYSTEM FOR TOTAL TRACEABILITY OF ON-FOOT INSPECTIONS

This device, which is compatible with the **INSPECTRA® LASER**, enables the operator to keep a computerized record of his detection operations:

- Geographical positioning on a map of detected leaks,
- The concentration measurements are recorded
- The operator may insert comments during the on-foot inspection
- Inspection reports are generated (log: location, date and time, plus a summary: index numbers, concentrations, weather conditions and operator comments)

Gazomat's exclusive GPS Tablet features the following components:

- A micro-antenna worn on the operator's shoulder,
- A GPS unit
- A USB cable connecting the receiver to the computer,
- An ultra heavy-duty laptop computer that may be used as a writing tablet.
- Gazomat's **DIGITEC® INSPECTRA® / NGS®** multilanguage software, running on Microsoft® Windows XP®.





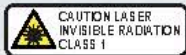
TECHNICAL SPECIFICATIONS

Inspectra® LASER

- Measurement principle :** • Laser spectroscopy
- Measurement scales :** • Scale 1: 0-10,000 ppm or 0 ppm to 100 % gas volume
• Scale 2: 0-100 % LEL
- Detection threshold :** • 1 ppm
- Response time :** • T90 standard: 4.5 seconds
• T10 standard: 2 seconds
• With suction rod T90: 6 seconds
• With suction rod T10: < 3.5 seconds
- Display :** • Liquid crystal display with digits, icons and backlighting
• 3 areas:
 - o concentration measurements (0 to 10,000 ppm and 0.0% to 100.0% gas volume),
 - o Status indicators
 - o Dialogue window• Height of measurement character for PPM scale: 13 mm
• Height of measurement character for GAS scale: 13 mm
- Keypad :** • 5 direct-control keys
• Advanced function control with protected-access scrolling menu
- Power supply :** • Either with Rechargeable Battery Pack: 3 x 1.2 V – 4 A/h NiCd in accordance with ATEX directive
• Or Alkaline type D Batteries: three 1.5 V alkaline cells in accordance with ATEX directive
• Charging time: 14 hours maximum
• 100 to 240 VAC / 50-60 Hz battery charger for ATEX battery pack
- Autonomy :** • 8 hours at 20 °C with all functions on (backlighting, pump on speed 2)
• 6 hours at temperatures below 0 °C with all functions on (backlighting, pump on speed 2)
• 6 hours at temperatures above 35 °C with all functions on (backlighting, pump on speed 2)
- Output of the electric pump :** • 45 l/hour and 60 l/hour
- Alarms :** • they activate the visual (LED and LCD displays) and audio warnings:
 - o Methane CH₄ concentration threshold
 - o Explosion risk due to methane CH₄ concentration
 - o Pump: pump stopped, pump error
- Status indicators :** • Battery charge level, pump status (2 speeds)
- Gas connection :** • Quick-connect inlet coupling with locking mechanism: suction rod on right side
• Quick-connect gas outlet coupling
- Electrical connections :** • Male power plug 2.1 mm : for battery charger
• Communication with a computer via a specialised communication link
- Housing :** • Housing material: polyamide reinforced with fibreglass and carbon
• Material of front side: anodised aluminum
- Dimensions :** • length 263 mm x width 113 mm x height 141 mm (10.3 x 4.4 x 5.5 inches)
- Weight :** • 2.7 kg with batteries (5.9 lbs)
- Conditions of use :** • Humidity: from 5 % to 80 % relative humidity
• Temperature: from -15 °C to +40 °C
• Pressure: atmospheric pressure 1013 mbar (± 100 mbar)
- Storage conditions (excluding batteries) :** • Humidity: < 90 % relative humidity
• Temperature: -20 °C to +60 °C
- Protection index :** • IP 54
- Certifications :** • **CE** marking
• 94/9/CE directive dated March 23, 1994
• 89/336/CE CEM directive dated May 3, 1989: electromagnetic compatibility
- Certifications for the ATEX 1 ppm to 100 % gas volume version :** • European standards of use in explosive atmospheres:
 - o EN 60079-0 from March 2004
 - o EN 60079-11 from January 2007

Ex II 2G Ex ib IIB T4

Pat. No. ZL02829531.5



Gas leak detection services : With over 20 years experience, GAZOMAT puts at your disposal the technical expertise of its professional teams and of its industry leading products to meet your most demanding service requirements.

After-Sales services : GAZOMAT ensures the maintenance of all its products both in France and worldwide via its network of representatives.

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