

GAS NETWORK LEAK SURVEY & LEAK DETECTION

Using latest infrared and optical technologies, GAZOMAT™ detection equipment covers the entire field detection process, including high-speed inspection by car, leak detection on foot, leak location and quantification, coupled with the newest data processing, GPS mapping tools and mobile communication systems.

ON-FOOT LEAK SURVEY

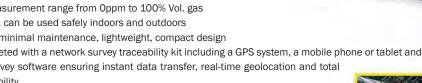
INSPECTRA® LASER

Portable methane leak laser analyzer with laser spectroscopy

With sub-PPM methane sensitivity, this optical technology detector is one of the safest, most reliable and accurate portable methane analyzers on the market.

- Total selectivity to methane no false measurements
- Below 1 ppm methane sensitivity
- Extended measurement range from Oppm to 100% Vol. gas
- ATEX certified, can be used safely indoors and outdoors
- User-friendly, minimal maintenance, lightweight, compact design

Can be completed with a network survey traceability kit including a GPS system, a mobile phone or tablet and a network survey software ensuring instant data transfer, real-time geolocation and total survey traceability



■ VEHICULAR LEAK SURVEY

VSR INSPECTRA®

Gas network survey vehicle with GAZOMAT's exclusive laser detection equipment

Compact equipment, easy to adapt to any type of vehicle down to the smallest, the VSR INSPECTRA® is designed for high-speed surveys. It meets all productivity, reliability and traceability requirements of gas operators.

- Below 1 ppm methane sensitivity and total selectivity to methane
- Shortest response time in leak detection, with less than 1 seconds
- Survey speed up to 40 km/hr (25mph)
- Traceability of surveys with dedicated software installed on a tablet or laptop PC and controlling the integrated powerful GPS receiver, the INSPECTRA® analyzer and mapping functions
- Real-time visualization of VSR and gas leaks on screen displayed map
- Automatic recording of all survey data and report generation
- Increased safety (no hydrogen on board) and reduced maintenance
- Fully integrated measurement cell and sampling rail

■ COMBINED ON-FOOT AND VEHICLE SURVEY

INSPECTRA® MICRO

Survey equipment for leak detection in city centers and pedestrian areas

Ultra-light survey solution specially designed for installation on small sized carriers such as scooters, tricycles, golf carts, quads, etc. The system provides a truly cost-effective alternative to on-foot detection and standard vehicle network survey. It significantly increases the daily inspection range and gives access to city centers and pedestrian areas, inaccessible to vehicules. The combined solution also allows leak detection and leak confirmation to be conducted seamlessly, using the same equipment, with the benefits of greater speed, mobility and flexibility.

- Fully equipped with INSPECTRA® LASER detector, GPS receiver, rugged leak data collector device (laptop PC/tablet or mobile), high-flow pump for superior sampling performances, sampling rail, and telescopic sampling rod
- Automated recording and transfer of leak detection information using GAZOMAT survey software solutions
- Visual and audio alerts to users when methane reading above the set threshold
- Wireless communication for interconnectivity
- Real-time leak visibility and navigation in Google Map with GPS and survey software
- No breaks between leak detection from the vehicle and leak confirmation using the integrated telescopic sampling rod
- Simple to switch from vehicle to on-foot detection
- Robust with easy access for routine maintenance
- Extreme stability and manoeuvrability
- Requires limited training



NSPECTED LASER

FIRST RESPONDERS/GAS CONCENTRATION MEASUREMENT

For safety and emergency applications, GAZOMAT™'s gas detectors alert users to the risks of explosion, toxicity, or suffocation, indoors and outdoors, in single-gas and multi-gas devices. These accurate and reliable products are highly portable, easy to use, and require limited maintenance.

■ GAZOTRACK™4

Infrared multi-function detector for methane, toxic and odorant gases

The GAZOTRACK 4 can detect up to four gases at the same time. This all-in-one device can be used for a wide range of detection situation including emergency interventions, measurement of odorant gases, testing for toxic gases in hazardous work zones, monitoring of gas networks, gas measurement by pipeline purging and filling...

- Simultaneous detection of up to 4 gases CH₄, CO, O₂, THT/TBM/H₂S
- 100 ppm sensitivity limit to methane
- Sensor immune to toxic compounds
- Temperature regulation system integrated non-condensing
- Stable and reliable measurements in fluctuating temperatures
- Short response time
- User friendly and minimal maintenance

■ CATEX™3

Explosimeter-catharometer for pinpointing the exact location of a leak as well as assessing explosion risks - in complete safety both indoors and outdoors.

- Operates in hazardous atmospheres with methane, butane, propane or even hydrogen and acetylene gasses
- 3 measurement scales PPM, LEL, GAS
- Superior resistance to extreme environmental and operational conditions
- Detects and measures gas concentration in less than 3 seconds
- High quality LCD screen displays large and clear measurements
- ATEX Certified for use both indoors and outdoors

■ µGAZEX™

Multi-function pocket explosimeter

The µGAZEX™ multiscale explosimeter provides users with personal protection in potentially explosive atmospheres. This light, compact device is a model for performance and reliability, with a fast response time and long life, poison-resistant sensor. The wide LCD screen and single control key make the $\mu GAZEX^{TM}$ easy to use.

- ATEX certified, suitable for use in 0 zones.
- Available in PPM, LEL, % Gas
- Available in four versions :
 - Explosimeter LEL Scale
 - Explosimeter-catharometer LEL and % Gas scales
 - Explosimeter PPM and Gas Scales
 - Methanometer % CH₄ scale

■ µGAZTOX™

Oxygen, toxic and odorant gas pocket detector

The µGAZTOX™ oxygen and toxic gas detector is a fully maintainable device for your personal protection when working in areas with hazardous gas.

- One of the few fully maintainable devices on the market
- Easy to use with single control key and wide LCD screen display
- Extensive range of electrochemical sensors made available: 0,, CO, H,S, O, THT, TBM
- Reliable performance with powerful audio, visual and vibration alarms
- ATEX Certified with IS & IP 67

GAZOTRACK !! .

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GAS LEAK DETECTION ACCESSORIES

All GAZOMAT products are available with a comprehensive set of accessories to suit a wide range of gas leak detection applications:

- Sampling probes
- Filters
- Test gases
- Chargers
- GPS receivers

- Sampling tubes
- Docking stations
- Test kits
- Rechargeable batteries Storage cases



an ecetec company

■ GAZOMAT PRODUCTS AND THEIR APPLICATIONS

PRODUCT	GAS MEASURED	GAS SCALES	SENSOR TYPE	APPLICATIONS	SOFTWARE
INSPECTRA® LASER Portable methane detector	CH ₄ - Methane	PPM %Vol. gas Double scale display	Laser (TDLAS)	Leak detection above ground Leak detection indoors Leak confirmation Work area monitoring Gas measurement	GAZOSURVEY Console GAZOSURVEY Mobile NGMesh Enterprise Management System
VSR INSPECTRA® Network Survey Vehicle	CH ₄ - Methane	PPM	Laser (TDLAS)	Leak detection above ground	GAZOSURVEY Console NGMesh Enterprise Management System
INSPECTRA® MICRO Network survey Kit for small sized carriers	CH ₄ - Methane	PPM %Vol. gas Double scale display	Laser (TDLAS)	Leak detection above ground Leak detection indoors Leak confirmation Gas measurement	GAZOSURVEY Console GAZOSURVEY Mobile NGMesh Enterprise Management System
GAZPOD™ Fixed stations Up to 4 gases simultaneously	CH ₄ - Methane	PPM PPB	Laser (TDLAS)	Leak detection above ground Remote gas monitoring	NGMesh Enterprise Management System via Wireless cellular connection
	CO / CO ₂ / H ₂ S / NO / NO ₂	PPM	Electrochemical		
	VOC	PPM	PID		
GAZOSCAN™ Long distance detector	CH ₄ - Methane	PPM	Laser (TDLAS)	Leak detection above ground Leak detection indoors Explosion risk assessment	NGMesh Enterprise Manage- ment system via Bluetooth
GAZOTRACK™4 Up to 4 gas detector	CH ₄ - Methane	PPM	Infrared (NDIR)	Leak detection above ground Leak localization Leak detection indoors Gas measurement Explosion Risk assessment Toxic risk assessment Odorant gas measurement	Bluetooth
	CO - Carbon monoxide	PPM	Leak detection indoors Gas measurement Electrochemical Explosion Risk assessment Toxic risk assessment		
	0 ₂ - Oxygen	%Vol gas			
	H ₂ S - Hydrogen sulphide	PPM			
	C ₄ H ₈ S - THT	mg/m³			
	C ₄ H ₁₀ S - TBM	mg/m³			
CATEX™3 Explosimeter catharometer	CH ₄ - Methane	PPM LEL %Vol.gas Double scale display	Catalytic combustion Thermal conductivity	Leak detection indoors Leak localization Explosion risk assessment Gas measurement Work area monitoring	
µGAZEX™ Multifunction pocket detector	CH ₄ - Methane	PPM LEL %Vol.gas Double scale display	Catalytic combustion Thermal conductivity	Explosion risk assessment Leak detection indoors Gas warning	
µGAZTOX™ Single gas pocket detector	0 ₂ - Oxygen	%Vol gas	- Electrochemical	Gas warning Leak detection indoors Toxic risk assessment Odorant gas measurement	
	CO - Carbon monoxide	PPM			
	H ₂ S - Hydrogen sulphide	PPM			
	0 ₃ - Ozone	PPM			
	C ₄ H ₈ S - THT	mg/m³			
	C ₄ H ₁₀ S - TBM	mg/m³			

■ SAMPLING DEVICES



SURVEY AND MONITORING SOFTWARE SOLUTIONS

Powerful survey software solutions including mobile applications and enterprise management systems complement GAZOMAT^{IM}'s products for increased safety and operational efficiency. Latest communication systems also provide interconnectivity and mobility of all detection equipment and data collector devices for unequalled visibility and traceability of leak detection activities.

■ GAZOSURVEY™ CONSOLE SOFTWARE

COMPLETE MONITORING SOLUTION

GAZOSURVEY console is Microsoft Windows based software for use with the Panasonic Toughbook series of field devices. The survey software drives the gas concentration measuring instrumentation, the leak data visualization and processing as well as the GPS system and mapping functions.

- For both vehicle and pedestrian leak surveys
- Automatic recording of comprehensive leak related data no manual data entry required
- Real-time visualization of survey circuit with precise vehicle/operator and leak localization on map
- Mapping functions allow users to see road maps as well as gas network maps and features
- Manual entry of notes and photos
- Automatic survey report generation and transfer using NGMesh Enterprise solution

■ SURVEY MOBILE APPLICATION

GAZOSURVEY™ MOBILE APPLICATION

Easy data collection and transfer from mobile devices

This field survey solution is available for iOS and Android operating systems and provides interconnected mobility in the field. It is compatible with NGMesh Enterprise solution.

- Seamless collection, storage and transfer of leak/detection data from GAZOMAT instruments
- Instant measurement instrumentation identification with serial numbers
- Real-time notifications to Emergency Service Centres
- Navigation in Google Maps to HotSpots for faster leak confirmations
- Real-time entry of notes, multiple photo storage per reading

■ NGMESH SYSTEM

Fully interconnected solution for remote continuous gas monitoring

NGMesh is an enterprise platform for the management of leak detection data and activities. The powerful platform helps identify and track all data related to methane and VOC leak detection using GAZOMAT stationary and portable detection equipment as well as GAZOSURVEY field survey software solutions. Web-based with direct access using a web browser, the system is flexible, fast, secure. It provides real-time visibility on leak activity all the time, everywhere for immediate decision-making.

- Secure automated leak data transfer to NGMesh platform and data storage
- Automated notifications and leak alerts via mobile app
- Immediate data review for leak remediation purposes
- Reporting instantly distributed to all concerned parties, in compliance with safety regulations
- Direct assignment by managers of leak remediation tasks to field technicians on their GAZOSURVEY enabled devices
- Geo-localization in Google Earth ensured by GPS/GNSS navigation system
- NGMesh system can manage hundreds of leak detection and monitoring systems running simultaneously in different locations and hundreds of users interfacing with the information

LONG DISTANCE METHANE DETECTION

■ GAZOSCAN™

Laser hand-held remote methane leak detector for inspections at a distance

This ultra-compact laser-based RMLD detects at 50 meters (164 feet) with precision. The GAZOSCAN device applies to any situation where operation close to the inspection zone is not possible. It will support all professionals in emergency response situations, such as gas utilities, construction and maintenance contractors, fire departments and others.

GAZOSCAN can be used for gas leak inspections of residential buildings and properties, natural gas pipelines and facilities, and gas tanks.

- Selective for methane
- Can detect through glass at a distance of 50 meters (164 feet)
- Fast response time, 0.1s
- 5 ppm sensitivity per meter
- Visual and audio alarms with configurable alarm threshold
- Large 2.8" LCD screen, lightweight (0.7kg/1.5lbs)







■ AFTER-SALES AND CUSTOMER SUPPORT

Servicing, verification, repair, maintenance and calibration of any GAZOMAT products are available from our GAZOMAT entities and from a worldwide network of Approved Service Centres. Our procedures ensure a minimum turnaround time for our customers' instruments whilst meeting the strictest standards in the industry.

■ TRAINING

Targeted training sessions on how to use and how to maintain GAZOMAT products are organized at the customer's premises or at GAZOMAT facility. Training sessions can be tailored to meet our customers' needs.

■ LEAK DETECTION SERVICES

GAZOMAT provides extensive leak survey services for expert monitoring – on foot and by car – of gas transmission pipelines, gas distribution networks or /production storage facilities. Our services benefit from the technical expertise of our field technician teams and from our industry-leading products and software.

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