GAZOMAT™

A company of T.D. Williamson, Inc.

Detection & Localization of Gas Leaks

CATEX™ 3

Explosimeter-catharometer
New generation

- **Easy-to-use**
- **Reliability and speed of detection**
- **3 measurement scales : PPM – LEL – Gas**
- **Explosion-proof to ATEX certification**
- **Robust design in compliance with the most severe industry standards**

TDW

Benefiting from the latest technological evolutions with current European explosion-proof and metrological certification standards, the CATEX™ 3 detector, the latest generation of explosimeter-catharometer from GAZOMAT™, makes it possible to pinpoint the exact location of a leak while ensuring optimal safety for operation in hazardous atmospheres.

Precise and reliable measurements

- **3 measurement scales**
  - PPM scale : 0 ppm to 10.000 ppm
  - LEL scale (explosimetry): 0% to 100% LEL
  - Gas scale (catharometry) : 0% to 100% gas volume.

- **Two scales displayed on a large LCD screen:**
  - Constant display of the gas volume scale (*)
  - Automatic switching between PPM and LEL scales:
    - o PPM mode, up to 10,000 ppm
    - o LEL mode, from 10,000 ppm to 4.4% gas volume (*).

- **Start-up of the unit away from the explosive atmosphere either in PPM/Gas mode or in LEL/Gas mode,** depending on the nature of the area investigated and the explosion hazard level.

- **Automatic zero-setting of the three scales at start-up** away from any explosive atmosphere and outdoors.

- **Manual zero setting possible** while the unit is in operation.

Easy-to-use

- Simple and intuitive interface
- Self-test at start-up of all key functions
- Visual and audio alarms for selection
- Status indicators for key components
- Dialog window for messages
- 12 hour operating time
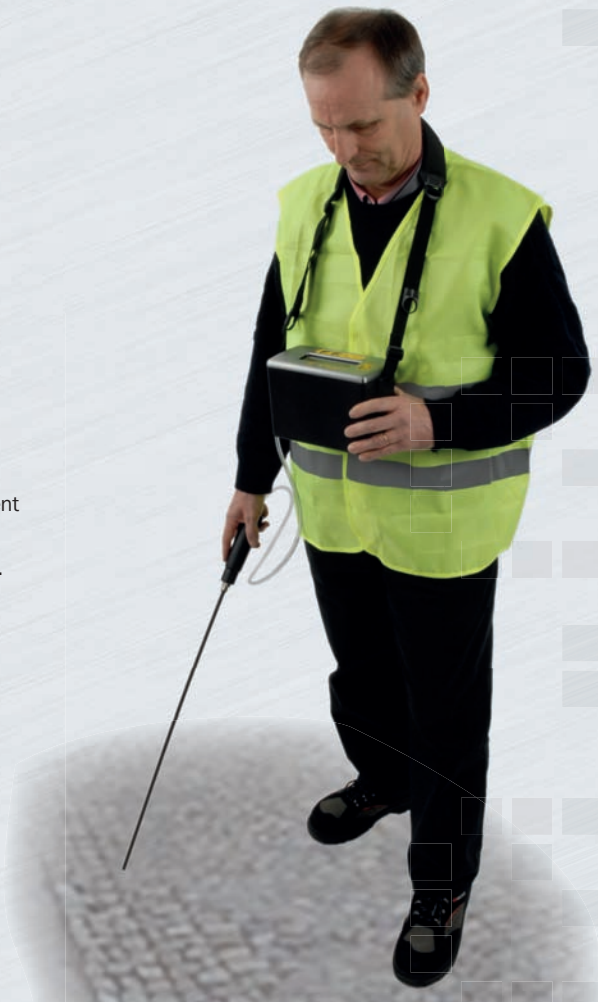- Complete set of accessories.

Compact and Robust Design

- High performance material provide ultimate protection for both the apparatus and the operator
- A high protection degree (IP 55) for superior resistance to extreme environmental conditions
- A reduced size and weight for the operator's greater comfort.

Extended applications

- **Leak confirmation and localization in bored holes**
- **Leak detection either indoors or outdoors**
  - Risers inside buildings
  - Gas boxes
- **Safety checks before re-pressurizing or after de-pressurizing gas pipelines** (measurement of gas concentration level in gas pipelines with or without the presence of Nitrogen)
- **Control of the atmosphere:** monitoring of the Lower Explosive Limit to secure a working area.

ATEX certification - the guarantee of a high level of security

In compliance with the European directive **ATEX 94/9/CE dated 23 March 1994,** the CATEX™ 3 can be used in category 2 explosive zones in confined spaces.

(*) *Gas Volume scale available upon request for other gases than methane (butane or propane).*

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The CATEX™3 unit is available with a large set of accessories for efficient detection activities.

Accessories and complementary tools

1) A sample handle with water-repellent and dust filters
2) A special end piece for fitting the long sampling rod
3) A special end piece for fitting the short sampling rod
4) A long, semi-rigid sampling rod
5) A short, flexible sampling rod
6) 1 meter of flexible sampling tubing
7) A 230 V charger unit with mains cord
8) A charging base
9) A 12 V vehicle charger
10) A gas check kit comprising a flow regulator and a 34 litre canister containing a 2% concentration methane mixture
11) A storage case with dedicated formed locations for the above listed items plus 1 set of dust filters and 1 set of water-repellent filters.

GAZOMAT™ Calibration Bench

This complementary instrument is designed for the verification and adjustment of the CATEX™ 3 (at least one a year). The procedure is automatic for the GAZOMAT™ detectors and semi-automatic for detectors from other manufacturers*.

- Provided with gas reference bottles, a laptop PC and Gazocal™** software for data processing and verification/adjustment (used with Microsoft® Windows® XP and Windows® 7 operating systems)
- Multi-language system
- Provides verification/adjustment reports and test reports authenticating the complete calibration and testing procedure
- Maintains history files for each detector being adjusted or verified
- Provides traceability of the reference gases
- 230 V power supply (or 115 V upon request)
- Sizes with gas bottles : 560 x 460 x 370 mm (22.1 x 18.1 x 14.6 inches)
- Weight with no gas bottle : 14.7 kg (32.3 lbs)
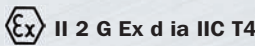- Unit weight of a gas bottle: 2.9 kg (6.4 lbs).

* Subject to unlocking the protected-access calibration procedure.
** Gazocal™ is GAZOMAT™ proprietary software.

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TECHNICHAL SPECIFICATIONS
CATEX™ 3

Measurement principle :	• Catalytic combustion (explosimetry) • Thermal conductivity (catharometry)
3 measurement scales :	• PPM scale: from 0 ppm to 10,000 ppm – minimum threshold : 50 ppm. Values displayed correspond to the actual methane concentration. • LEL scale (explosimetry): from 0% to 100% LEL – minimum threshold : 0.1% - Values displayed correspond to gas concentration in relation to the Lower Explosive Limit. Beyond 100% LEL, the gas becomes explosive in the presence of oxygen. • GAS scale (catharometry) : from 0% to 100% gas volume. – minimum threshold : 0,2 % - The scale corresponds to the reference gas present in the distribution network (methane in general).

Measurement accuracy :	• PPM scale: +/- 100 ppm
	• LEL scale (explosimetry):
	    o Reference gas
	        • from 0% to 50% LEL : +/- 5%LEL
	        • from 50% à 100% LEL : +/- 10% relative
	• GAS scale (catharometry) :
	    o Reference gas
	        • from 0% to 50% v/v : +/- 5%v/v
	        • from 50% to 100% v/v : +/- 10% relative

Calibration :	• to methane is standard (calibration to butane or propane is optional)
Display :	• Digital LCD alpha-numeric display with pictograms and back-lighting
Keyboard :	• 3 waterproof touch keys on front panel
Visual indicator :	• 1 red LED alarm on front panel
Conditions of use :	• Humidity : from 30% to 70% relative humidity • Temperature : from -20°C to +40°C
Storage conditions :	• Humidity : <95% relative humidity, no condensate • Temperature : from -20°C to +50°C
Power supply :	• NiCd rechargeable batteries
Autonomy :	• 12 hour operating time.
Electric pump :	• flowrate : 35 liters/hour
Case :	• 4 mm thick shock-resistant carbon-embedded polyamide case • 10 mm thick anodic aluminum front • Securit® glass display window
Sizes :	• 190 x 95 x 130 mm (7.5 x 3.75 x 5.1 inches)
Weight (with battery) :	• 2.1 kg (4.6 lbs)
Protection degree :	• IP 55
Certifications :	• Marking : C€ 0080 • ATEX Directive 94/9/CE dated 23 March 1994 • EMC Directive 2004/108/CE dated 21 may 2007: Electromagnetic compatibility • Metrological standards : EN 60079-1 of 2007 • European Standards for use in explosive atmospheres: EN 60079-0, EN 60079-1 and EN 60079-11 ⟨Ex⟩ II 2 G Ex d ia IIC T4 • Russian Standards GOST

ISO 9001
BUREAU VERITAS Certification

After-Sales services : GAZOMAT™ provides maintenance of all its products both in France and other countries through its many representatives world-wide.

Authorized agent

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UNI-Impressions 05/2012 - Pictures not binding on GAZOMAT™ - Specifications are subject to change without notice - REF Catex3_011_E_06_07_Rev02 du 05_12