



an ecotec company

■ Detection and 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

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 (CH₄)
 - LEL scale (explosimetry): 0% to 100% LEL (CH₄)
 - Gas scale (catharometry) : 0% to 100% gas volume (CH₄).
- **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).

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.

TECHNICAL 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):
 - Reference gas
 - o from 0% to 50% LEL : +/- 5%LEL
 - o from 50% à 100% LEL : +/- 10% relative
 - GAS scale (catharometry) :
 - Reference gas
 - o from 0% to 50% v/v : +/- 5%v/v
 - o 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
 - Display window in high-resistance ceramic glass
- Sizes**
- 190 x 95 x 130 mm (7.5 x 3.75 x 5.1 inches)
- Weight (with battery)**
- 1.96 kg (4.32 lbs) with batteries and carry strap
- Protection degree**
- IP 55
- Certifications**
- Marking : **CE** 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
 -  **II 2 G Ex d ia IIC T4**
 - Russian Standards GOST



After-sales service

GAZOMAT provides all customers with comprehensive product assistance and maintenance through its global service teams.

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