

Borehole Gas Monitor

Ion Science GasClam

GasClam can be used below ground for up to three months to measure a variety of gases, with temperature, barometric and borehole pressure giving a true long term profile for the first time! It's truly the definitive method of measurement for most below ground applications.

FEATURES

- Easy installation in a secure 50mm or 2 inch borehole
- Three months continuous un-manned data collection
- Methane (CH₄), oxygen (O₂) and carbon dioxide (CO₂)
- Temperature, borehole and atmospheric pressure
- Optional CO or VOC plus water depth
- Runs on two standard D-cell batteries
- Explosion Proof
- Programmable borehole venting

BENEFITS

- Reduction of unnecessary site visits
- Complete data for a full site assessment
- Demonstrates full due diligence
- Meets all legislative needs
- All relevant data including barometric pressure logged simultaneously
- Data can be downloaded on site for quick analysis
- All events are captured with a time and date stamp for further analysis
- Removal of any uncertainty in gas monitoring regime
- Assists with design of gas protection measures
- Validates operation for Biogas production
- Also can monitor greenhouse-gas emissions
- A post site development monitor for extra safety
- Optional carbon monoxide (CO) or volatile organic compound (VOC) sensor for specific applications
- Optional water depth sensor where ground water influences results
- Control vent boreholes to measure concentration build up times
- Optional telemetry system for real-time monitoring on critical sites



CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com

Borehole Gas Monitor

Ion Science GasClam

TYPICAL APPLICATIONS

On Landfill Sites

- Perimeter monitoring using existing boreholes
- Accurate real-time measurement of Green House gases
- Discharge of licence when used as a post-closure monitor
- Spontaneous combustion detection
- Long term monitoring

On Brownfield Sites and Disused Coal Mines

- Site investigation
- Validation of any remediation undertaken or needed
- After site development validation and monitoring
- General due diligence

For Petroleum/Solvent Storage and Filling Stations

- Leak site investigation
- Perimeter monitoring.
- Early validation of effective bunding or need to repair
- Long term spillage monitoring
- Compliance to the Regulations

On Refineries

- An integral part of long term monitoring procedures.
- An independent check on other monitoring techniques.
- Incident use after spillage
- Demonstration of due diligence
- CO₂ Sequestration monitoring

Below Ground Carbon Capture and Storage

- Validation of storage sites: peat bogs, etc.
- Long term site surveys for suitability
- Validation of compliance

SPECIFICATIONS

Memory 6300 time/date stamped readings

Power Internal x 2 alkaline D-cells

Battery Life 3 months (based on hourly sampling)

Case High quality stainless steel

Weight 6 kg or 13.2 lb.

Dimensions Overall length 85 cm or 33½ inches
Borehole tube length 78 cm or 30¾ inches
Head diameter 10.9 cm or 4¼ inches
Borehole tube diameter 4.3 cm or 1¾ inches

Protection IP-68 (continuous submersion)

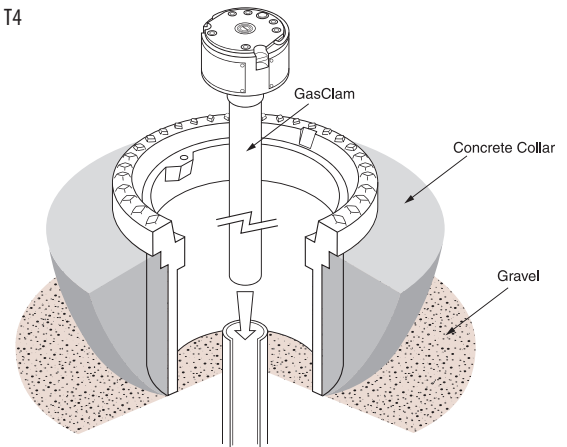
Operation Temperature -5°C to +50°C or 23°F to 122°F

Approvals CSA, CE, EMC, ATEX 0105 X,
Ex II 2G, Ex d ib [ib] IIB T4

Approvals Pending IECEX UL

World-Wide Patent Pending

Exclusively sold and promoted by Ion Science Limited



Gases	Method/Type	Range	Resolution	Accuracy	Linearity
CH ₄	Infra-red	0-100% vol	0.01% vol	± 5% of reading ± 1 digit	± 2% FSD or 10% reading
CO ₂	Infra-red	0-100% vol	0.01% vol	± 5% of reading ± 1 digit	± 2% FSD or 10% reading
Oxygen	Electrochemical	0-25% vol	0.1% vol	± 5% of reading ± 1 digit	± 2% FSD or 10% reading
CO*	Electrochemical	0-2000 PPM	1 PPM	± 5% of reading ± 1 digit	± 2% FSD or 10% reading
VOC*	PID	0-4000 PPM	1 PPM	± 5% of reading ± 1 digit	± 2% FSD or 10% reading

Environment	Method/Type	Range	Resolution
Temperature	Internal Chip	-5°C to + 50°C or 23°F to 122°F	1°C or 1°F
Barometric	Piezoelectric	800 to 1200 mb	0.1 mb
Borehole	Piezoelectric	-100 to +100 mb	0.01 mb
Water Depth*	Piezoelectric	0 to 10 m	0.1 m

*Optional

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com