



Powerful FT-IR technology for monitoring hazardous gases

ACM 100



Applications:

Facility-wide monitor for hazardous production materials (gases and vapours):

- Workplace breathing zone
- Chemical storage rooms
- Exhaust ducts
- Plant emissions
- Gas cabinets
- Valve manifold boxes
- Process tools
- Vacuum pumps

Advantages:

- Monitors a broad range of chemicals
- Detects up to 15 gases per monitoring point
- New gases added via software (as needed)
- Helps identify unknown odours
- Each gas is specifically identified
- Eliminates phantom false alarms
- Monitors up to 40 sample points
- On-site gas calibration is not required

Configurations:

- Number of sample points:
10, 20, 30 or 40

The ACM 100 uses versatile and proven Fourier transform infrared technology to detect a wide range of volatile chemicals. It uses the infrared fingerprint of each gas for identifications which are free of cross interferences. It can also identify unknown chemicals or odours. Detection of new gases can be added at any time.



By choosing between two sample cells the ACM 100 can detect either ppm levels for monitoring toxic gases or per cent levels for monitoring flammable gases.

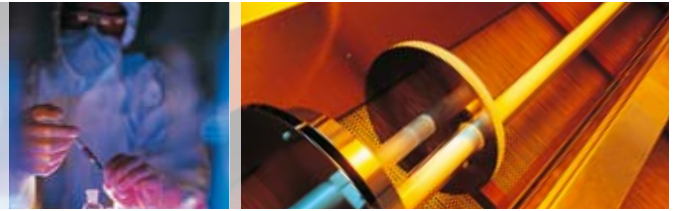
The gas selections and alarm configuration for each point are easily configured or changed either from the front panel or remotely using just a Web browser. Up to 15 gases can be detected at each point. Up to 4 points can be sampled together for increased speed. Because of its modular design and built-in diagnostics, the ACM 100 is easy to maintain. Since there are almost no consumable parts the cost of owning an ACM 100 is low.

An optional LonWorks® interface is ideal for connection to the Honeywell Analytics life safety system.

FT-IR analysis in four steps

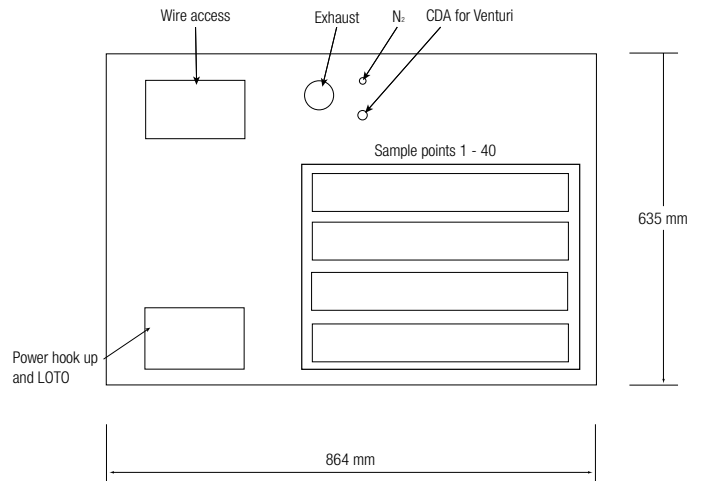
1. An interferometer modulates a beam of infrared light and sends it through a gas cell containing the air sample, where airborne chemicals in the sample absorb infrared light creating a spectrum unique to each chemical.
2. The absorbed light is measured at the detector.
3. Infrared light intensity is digitised, then computed into an error-free infrared spectrum containing all of the analytical information.
4. The computer examines the infrared spectrum, to identify and to quantify each chemical present in the air samples.

Technical Summary

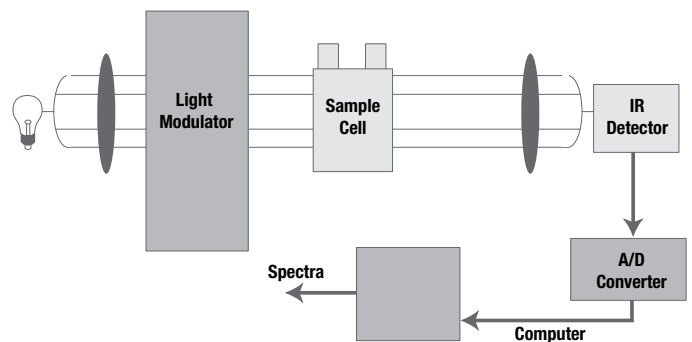


Performance Specifications	
Analysis method	Continuous scan FT-IR (Fourier transform infrared) analyser
Gas cell path	6m or 10cm path
Gases monitored ⁽¹⁾	Organic, PFC, CFC, HFC, Metal Organic, NF ₃ and many other inorganic gases
Lower detection limit	~ 1.0ppm for 6m path cell
Scanning rate	15 sec per point
Sample point capacity	Available in 10, 20, 30 or 40 point configurations composite sampling up to 4 points
Data archiving	30 days for all spectra 90 days for alarms
Applicable standards	S2-93 compliant, CE
<small>(1) Refer to separate gas list</small>	
Facilities Requirements	
Sample line tubing	1/4 in ID x 3/8 in OD polypropylene
Sample line inlets	3/8 in Swagelok®
Sample line length	750 feet (230m) composite sampling 500 feet (150m)
Electrical supply	230 VAC, 10A or 110 VAC, 20A
Purge gas, N₂	5 – 10 psi, 2 l/min
Venturi requirements	90 - 120 psi, 320 l/min
Exhaust pipe	1,5 in NPT
Overall dimensions LxWxD	1,676 x 864 x 635mm 66 x 34 x 25in
Weight operating shipping	318kg / 700lbs 420kg / 930lbs
Outputs and Communications	
Standard	
Relay outputs	80 Relays, programmable by sample point and gas type
Interfaces	Web based user interface (e-Diagnostics) Ethernet: HTML viewing/control; ODBC access Touch screen user friendly interface (point and click)
Optional	
Interface	LonWorks® Allen Bradley®, Modbus®, Profibus® OPC drivers others on request
Options	
Pump system	Venturi and electric back up pump Dual pump (electric)
Line leak	Line leak option with check valves

Top View of ACM 100 Connectors



Schematic of FTIR



Endorsements and Accreditations



Our Product Range



Fixed Gas Monitoring

Honeywell Analytics offers a wide range of fixed gas detection solutions for a diverse array of industries and applications including: Commercial properties, industrial applications, semiconductor manufacturers, energy plants and petrochemical sites.

- » Detection of flammable, oxygen and toxic gases (including exotics)
- » Innovative use of 4 core sensing technologies – paper tape, electrochemical cell, catalytic bead and infrared
- » Capability to detect down to Parts Per Billion (ppb) or Percent by Volume (%v/v)
- » Cost effective regulatory compliance solutions

Portable Gas Monitoring

When it comes to personal protection from gas hazards, Honeywell Analytics has a wide range of reliable solutions ideally suited for use in confined or enclosed spaces.

These include:

- » Detection of flammable, oxygen and toxic gases
- » Single gas personal monitors – worn by the individual
- » Multi-gas portable gas monitors – used for confined space entry and regulatory compliance
- » Multi-gas transportable monitors – used for temporary protection of area during site construction and maintenance activities

Technical Services

At Honeywell Analytics, we believe in the value of great service and customer care. Our key commitment is providing complete and total customer satisfaction. Here are just a few of the services we can offer:

- » Full technical support
- » Expert team on hand to answer questions and queries
- » Fully equipped workshops to ensure quick turnaround on repairs
- » Comprehensive service engineer network
- » Training on product use and maintenance
- » Mobile calibration service
- » Customised programmes of preventative/corrective maintenance
- » Extended warranties on products

Find out more

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