GAS DETECTION & CONFINED SPACE · PREMIUM & SPECIALISED (HSE-MANDATED)

Multi-Gas Detectors (O2 / LEL / CO / H2S)

Multi-gas detectors are portable instruments that simultaneously measure oxygen, flammable gas (LEL), carbon monoxide and hydrogen sulphide, alarming when any reading leaves safe limits before confined-space entry or during hot work.

TECHNICAL SPECIFICATIONS	
Certification	ATEX II 1G Ex ia IIC T4; IECEx; UL / CSA Class I Div 1; IP67
Gases	O2 0–30 % vol; LEL 0–100 %; CO 0–1,000 ppm; H2S 0–100 or 0–200 ppm
Sensor types	Electrochemical (O2, CO, H2S); catalytic bead or infrared (LEL)
Typical alarms	O2 19.5 % / 23.5 %; LEL 10 % / 20 %; CO 35 / 200 ppm; H2S 5 / 10 ppm
Sampling	Diffusion or motorised pump; pumped units up to 30 m hose
Battery	Li-ion rechargeable, 12–18 h; some models alkaline option
Operating temperature	-20 °C to +50 °C (some to +55 °C)
Calibration interval	Typically 180 days; bump test before each use
Packaging	Individually boxed with charger; cartons of 5 or 10

Key features

- Four sensors in one unit: O2, LEL (CH4 or pentane), CO and H2S; optional fifth sensor for VOC, SO2 or NH3
- ATEX, IECEx and UL intrinsically safe for Zone 0 and Zone 1 hazardous areas
- Integral or clip-on sample pump with up to 30 m tubing for remote pre-entry testing
- Backlit LCD showing all gases, peak and TWA / STEL values; 95 dB alarm with LEDs and vibration
- Rugged IP67 housing with rubber over-mould for drop resistance on rig floors and sites
- Rechargeable lithium-ion battery giving 12 to 18 hours; data logging and docking-station compatible

Variants available

- Diffusion 4-gas detector (O2, LEL, CO, H2S)
- Pumped 4-gas detector with sampling hose and probe
- 5-gas detector with PID for VOCs
- 5-gas detector with SO2 sensor for refineries
- Infrared LEL version for low-oxygen or silicone-exposed atmospheres
- Confined-space kit: pumped detector, hose, float probe, case and calibration gas

TYPICAL APPLICATIONS	
Oil & gas	confined-space entry and hot-work gas testing on ADNOC and Saudi Aramco permits
Petrochemical	tank, vessel and column entry during turnarounds in Ruwais, Jubail and Yanbu
Water & wastewater	manhole, wet well and digester entry for Dubai Municipality and ADSSC
Construction	deep excavation, tunnel and shaft atmosphere monitoring
Marine	ship tank and ballast space entry at Jebel Ali and Dammam ports
Industrial	boiler, silo and kiln inspection in cement, steel and power plants

COMPLIANCE, BRANDS AND SELECTION

Compliance (UAE / GCC)

Confined-space procedures under Abu Dhabi OSHAD, Dubai Municipality code of construction safety practice, ADNOC HSE and Saudi Aramco CSM Chapter on confined spaces all require atmosphere testing for oxygen, flammables and toxic gases before entry and continuously during occupation. Authorised gas testers typically use pumped multi-gas detectors for pre-entry testing at multiple levels and diffusion units worn by entrants. Instruments must be certified to ATEX or IECEx for the area classification.

Brands we supply

Honeywell BW, Dräger, MSA Altair, Industrial Scientific Ventis, Crowcon, RAE Systems

How to choose

1. Choose a pumped unit for pre-entry testing of tanks and manholes; diffusion units for entrants and fire watch
2. Select infrared LEL if the atmosphere may be oxygen-deficient or contain sensor poisons such as silicones
3. Add a PID sensor where benzene or other VOCs are a concern on refinery and tank-farm work
4. Standardise on one brand across the fleet so docking stations and calibration gas are interchangeable

Request a quotation

Send quantity, sizes and delivery location. We reply with an itemised quotation and certificates within one working day.

WhatsApp / call +971 54 541 4145 · faizal@albarakaservices.com

Product page: albarakaservices.com/products/safety-products/multi-gas-detectors/

Typical specifications for this product class, compiled by Al Baraka Diyar for quotation and tender preparation. This is not a manufacturer datasheet. Exact values, markings, sizes and certificates depend on the brand and model supplied and are confirmed in our quotation and in the manufacturer's test certificates. Always verify suitability with your site HSE officer. Information is subject to change without notice.