CO$_2$
H$_2$S
Cl$_2$
NH$_3$
O$_3$
CO
O$_2$
CH$_4$
SO$_2$
CO$_2$
H$_2$S

Tetra
Personal Multigas Monitor
Oxygen, Toxic & Flammable Gases

TETRA

Tetra is a single button, reliable and robust multigas monitor with optional internal pump. Featuring intelligent sensor modules, shockproof construction and self checking software, Tetra is simple to use and assures reliable gas detection in the toughest of environments.

Simple
- Single button operation
- Easy to read backlit display for gas readings and diagnostics
- Clear calibration due warning
- Rechargeable Li-ion battery gives 12 hours of continuous operation

Alarms
- Loud 94dBA audible alarm
- Ultra bright dual red/blue visual alarm
- Vibrating alarm

Robust
- Rugged plastic housing with flexible internal assembly to resist shock and vibration
- Durable over moulded rubber for added protection
- Water and dust resistant to IP65

Flexible
- Optional built-in pump
- Rechargeable and alkaline battery versions available
- Compatible with Crowcon Portables PC Software
- Fully interchangeable intelligent sensor modules

CROWCON
Detecting Gas Saving Lives

TETRA

Tetra is a personal multigas monitor with an optional built-in pump designed to reliably detect gas in the toughest of environments.

Gases and Ranges

Required ranges and alarms may vary by country and application and can be configured as required. Each gas channel can have two instantaneous alarm levels set. Toxic channels also have Time Weighted Average (TWA) alarms.

Flammable gas calibration is available for methane, propane, butane, pentane, hydrogen and ethylene as standard.

Tetra is also available in a safe area CO_2 version offering 0-5% carbon dioxide measurement.

Typical ranges and alarms

Gas	Range	Standard Alarm (UK)
Flammable	0-100% LEL	20% LEL
Oxygen	0-25%	19/23%
Hydrogen sulphide	0-100ppm	5ppm
Carbon monoxide	0-500ppm	30ppm
Sulphur dioxide	0-20ppm	1ppm
Chlorine*	0-20ppm	0.5ppm
Nitrogen dioxide	0-20ppm	1ppm
Ammonia	0-100ppm	25ppm
Ozone*	0-1ppm	0.1ppm
Hydrogen	0-1000pm	N/A
Hydrogen cyanide	0-25ppm	5ppm
Hydrogen fluoride	0-10ppm	1ppm
Phosphine	0-5ppm	0.2ppm
Fluorine	0-1ppm	0.1ppm
Phosgene	0-1ppm	0.1ppm
Carbon dioxide	0-5%	0.5%

* unpumped only

Gas Test Kit

The Gas Test Kit provides a simple and convenient means of carrying out either a pre-use (bump) test or a simultaneous four gas calibration (flammable, oxygen, hydrogen sulphide and carbon monoxide only).

PC Interface and Calibration

Tetra can be routinely calibrated either manually or by using Crowcon Portables PC software or Checkbox IMH packages, providing the user with full configuration control, calibration and access to data and event logs files. An IR link is available using a RS232/USB connection from the PC.
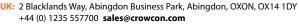
Charging Options

The Tetra can be supplied with:

- Plug in charging power supplies with UK, EU or US plug or in-line 110V/230V supply
- 10-way multicharger with 90-260V in-line power supply with either UK, EU or US mains lead
- Vehicle lighter socket charger for in-vehicle charging

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Specification:

Weight **Dimensions**	498g (1.1lb) Rechargeable 122 x 128 x 57mm (4.75 x 5 x 2.25 inches) Non-rechargeable 134 x 128 x 57mm (5.25 x 5 x 2.25 inches)
Typical Response Times (T_{90})	Flammable 20 s, Toxic gas 20 s, Oxygen 10 s
Audible Alarms	94dB Multiple alarm sounds allow selection of distinctive tones for different alarm levels
Visible Alarms	Dual colour red/blue flashing LED in gas hazard
Vibrating Alarm	Internal vibrating alarm
Display	128 x 64 graphic LCD with backlight, giving simultaneous display for all gas channels. Graphic symbols for battery (with proportional indication of remaining operation time), pump operation, healthy operation or fault warning. Start up indication when calibration is due within 30 days, calibration overdue, or service required.
Display Mode	Normal display for real time gas concentration levels. Display recall for the Peak readings and TWA.
Datalogging	Timed datalogging: 50 hours at 1-minute data rate (>3,000 data logs of 4 channels) Event logging >1500 events
Battery Types	Rechargeable Li-ion battery Non rechargeable pack 3xAA Alkaline cells
Operating Time	Rechargeable - 12 hour minimum based on pumped four gas unit with flammable sensor
Sampling	Hand aspirator or internal electric sampling pump
Operating Temperature Range	-20°C to +55°C (-4°F to +131°F) Toxic and oxygen sensors are not rated for continuous operation at high temperatures. Consult Crowcon if operating temperature are likely to exceed 40°C (104°F) for extended periods.
Humidity	20-90% RH
Ingress Protection	IP65
Approval Codes *Europe* *International* *North America*	ATEX II 2G Ex ia d IIC T3 Gb (-20°C ≤ Ta ≤ 55°c) BASEEFA 03ATEX0193 IECEX Ex ia d IIC T3 Gb (-20°C ≤ Ta ≤ 55°c) BAS04.0024 CSA UL/cUL Class I Division I Groups A, B, C, D, T3C
Safety Standards *Europe* *North America*	EN60079-0, EN60079-11, EN60079-1, 94/9/EC UL913, CSA22.2, 152
Operation Standards	EN50270, EN50271, IEC61508, EN61779, EN45544
Calibration	Tetra can be routinely calibrated manually using the menu, using Crowcon Protables PC software or automatically using Checkbox IMH.
Accessories	Tetra is supplied with an integral belt/pocket clip. Pumped units are supplied with a sampling kit (flowplate and 2m (6ft) tubing).
Optional Accessories	Universal harness plate, shoulder strap, chest harness, carry case, aspirator assembly (flow plate bulb and 2m/6ft tubing), fixed and telescopic sample probes and an in-line water trap.

Crowcon reserves the right to change the design or specification of the product without notice.

Area reserved for distributor stamp

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