

CO<sub>2</sub>  
H<sub>2</sub>S  
Cl<sub>2</sub>  
NH<sub>3</sub>  
O<sub>3</sub>  
CO  
O<sub>2</sub>  
CH<sub>4</sub>  
SO<sub>2</sub>  
CO<sub>2</sub>  
H<sub>2</sub>S

# Triple Plus+

## Portable Monitor Oxygen, Toxic and Flammable Gases



## Triple Plus+

With over 60,000 units in use worldwide, our customers have come to depend on the robust and reliable performance of the Triple Plus+.

The extremely durable Triax™ case and internal construction makes the Triple Plus+ an industry favourite known for the ability to withstand even the most demanding of applications.

### Benefits

- Simple customisation to alternative flammable gas correction factors
- Wide range of sensor types allowing 4 gas detection
- QuickCal – simple rapid calibration
- Peak hold capability for pre-entry checks

### Convenient and simple to use

- Large four channel simultaneous gas display
- Piercing 85dBA @ 1m
- Ultra bright LED alarms with top visibility
- Confidence blip, low battery and TWA warnings
- Simple Windows™ software interface

### Triple Plus+ features:

#### Rugged construction

- Triax™ casing will not crack or shatter when dropped
- Unique internal design will resist the harshest treatment
- Full buoyancy makes recovery from water possible

#### Flexible

- Available for diffusion, manual aspiration or pumped sampling
- Interchangeable sensor modules
- Comprehensive datalogging with site and user names



# Triple Plus+

Triple Plus+ is a 4 gas personal monitor for oxygen, toxic and flammable gases used for personal safety around the globe.

## Gases and Ranges

Ranges and alarms may vary by country and application which may be configured as required. Each channel can have up to three levels of alarm, including short and long TWA exposure levels for Toxic channels.

A choice of 12 flammable correction factors are available via Portables PC.

Other sensors may be available.

Gas	Range	Typical Alarm (UK)
Flam	0-100% LEL	20% LEL
H <sub>2</sub> (electrochem)	0-100% LEL	20% LEL
CH <sub>4</sub>	0-100% vol	-
O <sub>2</sub>	0-25%	19%/23%
H <sub>2</sub> S	0-50ppm	5ppm
CO	0-500ppm	30ppm
SO <sub>2</sub>	0-10ppm	1ppm
Cl <sub>2</sub>	0-5ppm	0.5ppm
NO <sub>2</sub>	0-10ppm	1ppm
PH <sub>3</sub>	0-2ppm	0.1ppm
NH <sub>3</sub>	0-50ppm	25ppm
H <sub>2</sub> (non-Flammable)	0-2000ppm	N/A
HCN	0-25ppm	10ppm
HCl	0-10ppm	1ppm
F <sub>2</sub>	0-10ppm	1ppm
HF	0-10ppm	2ppm
ETO	0-10ppm	5ppm
ClO <sub>2</sub>	0-1ppm	0.1ppm
NO	0-100ppm	25ppm

\*Unpumped units only

## Charging Options

The Triple Plus+ has two dual rate charging solutions supplied with UK, EU, US plug and without plug configurations. A vehicle adapter for in-vehicle charging is also available.

- Standard drop in charging cradle
- PC interface charger



## NEW LIBRA Li-Ion Battery Pack

Available in new builds from April, the new LIBRA battery pack offers extended lifetime and charge cycles. Also designed to replace lead acid batteries in existing units, the LIBRA has solved the reduced lifetime effects of changes in Lead Acid technology during recent years. Compatible with Triple Plus+ and Triple Plus+ IR units whilst maintaining certification levels, the LIBRA charges with the existing charger units and takes only seconds to replace.



Contact Crowcon for further information.

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Specification	
Weight	880 g (1.9 lb)
Dimensions	118 x 200 x 73mm (h x w x d) (4.65 x 7.8 x 2.9 inches) including strap hooks
Approval Codes	ATEX II 2G: Ex ib d IIC T4 Gb
Europe	Class I Division 1, Groups A, B, C, D
North America	
Safety Standards	EN50014, EN50020, 94/9/EC, SFA3009, EN50081-2, EN50270, EN50082-2
Europe	
North America	UL 913, CSA 22.2 No.157
Ingress Protection	IP65
Typical response times	Methane 20 s, Oxygen 10 s, Typical Toxic Gas 20 s
Expected sensor life	Flammable 5 years, Toxic 3 years, Oxygen 2 years
Audible Alarms	Piercing, rapid intermittent, piezo-electric tone, 85 dBA at 1 m Confidence blip (selectable) Distinctive double blip for low battery with user accept
Visible Alarms	Ultra bright flashing red LED in gas hazard Slow flashing green LED indicates instrument is working Distinctive double flash of green LED indicates low battery
Display	2 lines of 24 characters, dot matrix high contrast LCD with back light operating for 30 minutes. Values and units for up to 4 gases displayed simultaneously at current, TWA or peak levels. Low battery, pump failure, real time and elapsed time, calibration and configuration data also displayed
Datalogging	Adjustable sample rate, 100 hours @ 1 minute sample rate (maximum 6000 data points per channel), logging of events, user and site
<b>NEW</b> LIBRA	Li-Ion rechargeable battery pack Battery Life: Standard instrument >12 hours Pumped instrument >10 hours
Battery Charging	Dual rate 'drop in' charger Dual rate charger/PC interface
Electric pump	Optional internal pump with on/off button
Operating Temp. Range	-20°C to +50°C (-4°F to 122°F)
Humidity	20-90% RH non-condensing
PC Interface	RS232 connection via the interface charger. RS232/USB converter available. Portables PC also controls datalogging, giving the user a choice of direct graphical output or a datafile compatible with all leading spreadsheets
Calibration	Triple Plus+ can be routinely calibrated using Portables PC software or Crowcon Checkbox IMH
Accessories	Supplied as standard: manual, shoulder strap and allen keys (pumped units include additional flow plate, 2m hose and pouch)
Optional Accessories	Leather carry case, straight and telescopic probes, water trap, baffle plate, aspirator, calibration flow adaptor and hose

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