Triple Plus+ IR

Portable Monitor

Flammable Hydrocarbons
Carbon Dioxide, Oxygen,
and Toxic Gases

Triple Plus+ IR

Incorporating infrared detection technology the Triple Plus+ IR extends the capability of the Triple Plus family of products allowing extended life detection of hydrocarbons and carbon dioxide.

The infrared hydrocarbon sensor offers measurement in inert backgrounds at both %LEL and %volume levels for tank purging and inert atmosphere monitoring.

Infrared hydrocarbon sensor benefits

- Volume % measurement for purging applications
- %LEL measurement in air or inert backgrounds
- Single or dual range measurement
- No poisoning effects
- Reduced cost of ownership – long life sensor and no burnout
- IR CO_2 detection, 0–2%

Triple Plus + IR 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

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

CROWCON
Gas Detection You Can Trust

Triple Plus+ IR

Triple Plus+ IR is a 4 channel personal monitor for flammable hydrocarbons, oxygen and toxic gases offering single or dual flammable ranges.

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.

Flammable sensors are offered as a single (0-100% LEL) or dual range (0-100% LEL and 0-100% Volume) which occupies two channels.

Flammable gas calibrations are available for methane, butane, acetylene, pentane (% LEL only), propane and ethylene. Other sensors may be available.

A CO_2 IR sensor can be fitted in the place of the Flammable IR sensor (only one IR sensor may be fitted in the unit).

Gas	Range	Typical Alarm (UK)
Flam	0-100% LEL	20% LEL
Flam	0-100% vol	No alarm
CO_2	0-2%	0.5/1.5%
O_2	0-25%	19%/23%
H_2S	0-50ppm	5ppm
CO	0-500ppm	30ppm
SO_2	0-10ppm	2ppm
Cl_2 *	0-5ppm	0.5ppm
NO_2	0-10ppm	1ppm
PH_3	0-2ppm	0.1ppm
NH_3	0-50ppm	25ppm
H_2 (non-Flammable)	0-2000ppm	N/A
HCN	0-25ppm	10ppm
HCl	0-10ppm	1ppm

*Unpumped units only

Charging Options

The Triple Plus+ IR 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 the 1st March, 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 whist maintaining certification levels, the LIBRA charges with the existing charger units and takes only seconds to replace.

Specification	
Weight Dimensions	880 g (1.9 lb) 118 x 200 x 73mm (h x w x d) (4.65 x 7.8 x 2.9 inches) including strap hooks
Approval Codes *Europe* *North America*	 ATEX II 2G: Ex ib d IIC T4 Gb Class I Division 1, Groups A, B, C, D
Safety Standards *Europe* *North America*	 EN50014, EN50020, 94/9/EC, EN50081-2, EN50270, EN50082-2, EN50270 UL 913, CSA 22.2 No.157
Ingress Protection	IP65
Typical response times	IR 20 s, Oxygen 10 s, Typical Toxic Gas 20 s
Expected sensor life	IR 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
NEW LIBRA	Li-Ion rechargeable battery pack Battery Life: Standard instrument >12 hours Pumped instrument >10 hours ATEX and IECEx versions
Lead Acid Battery	Lead Acid technology Battery Life: Standard instrument - 12 hours Pumped instrument - 10 hours UL only (LIBRA pending)
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+ IR 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

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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