



## Personal Monitors for toxic gas and oxygen

# Custodian

**Custodian is the most flexible personal monitor you will find.** Every aspect of its operation has been designed to be simple while offering you all the functions you will ever need. Custodian is light and easy to wear, with a bright display, programmable alarms, simple software and nickle metal hydride batteries.

### Rugged construction

- Triax™ casing will not crack or shatter when dropped
- Water and dust resistant to IP66 standard.

### Loud & clear programmable alarms

- Wailing multi-tone siren, 85 dBA @ 1 m
- Ultra bright dual flashing LEDs visible over a 270° angle
- Three levels of alarm - all configurable

### Safe to use

- Large digit, high contrast, back-lit display highly visible over a wide angle
- Monitor and battery pack both Intrinsically Safe.

### Comfortable to wear all day

- A compact and lightweight design with a wide range of attachments.

### Detachable nickel hydride battery pack

- Will last a whole shift
- No memory effects
- Simple recharging

### Flexible functions

- Password protection limits functions for simple everyday use
- Comprehensive Windows™ compatible software allows functions to be customised

# Custodian

## Specification

<b>Weight</b>	500 g (1.1 lb)	
<b>Dimensions</b>	155 h x 102 w x 52 d mm (6.1 x 4 x 2 inches)	
<b>Typical measuring ranges and alarm settings</b> (up to 4 gas measurement channels, with three levels of alarm)	range	alarm
	Flammable gas	0-100% LEL 20% LEL
	Oxygen	0-25% 19% & 23%
	Hydrogen sulphide	0-50 ppm 10 ppm
	Carbon monoxide	0-500 ppm 50 ppm
	Sulphur dioxide	0-10 ppm 2 ppm
	Chlorine	0-5 ppm 0.5 ppm
	Nitrogen dioxide	0-10 ppm 2 ppm
	Phosphine	0-5 ppm 0.5 ppm
	Ammonia	0-50 ppm 25 ppm
	Hydrogen ( <i>non-flammable levels</i> )	0-1000ppm -
	Hydrogen cyanide	0-25 ppm 10 ppm
	Other sensors available	
<b>Typical response times</b>	Methane 20 s, Oxygen 10 s, Typical toxic gas 20 s	
<b>Expected sensor life</b>	Flammable 5 years, Toxic 3 years, Oxygen 1 year minimum	
<b>Audible alarms</b>	Wailing siren, 85 dBA at 1 m, user selectable tones Confidence blip (selectable) Continuous tone for low battery	
<b>Visible alarms</b>	Ultra bright flashing red LED pair in gas hazard Slow flashing green LED shows instrument is working.	
<b>Display</b>	Custom 7 segment, high contrast LCD 8 mm character height for gas reading. Symbols for low battery, TWA alarm, blocked pump, peak hold and password protection. Bright backlight	
<b>Datalogging</b>	Adjustable sample rate, 22-66 hour @ 1 minute sample rate (depending on gas concentration)	
<b>Battery type</b>	Detachable, rechargeable 1.2 Ah nickel metal hydride battery pack (up to 1000 recharge cycles, easily disposable). Optional dry cell pack uses 4 x AA disposable alkaline cells	
<b>Battery life</b>	Standard instrument: 15 hours, Pumped instrument: 12 hours	
<b>Battery charging</b>	Dual rate charger for instrument or detached battery pack Fast charge 6 hours; trickle charge will not damage batteries Multi-charger available as an option Input 100-250 V ac, 12-30 V dc	
<b>Electric pump</b>	Optional internal pump with auto on/off	
<b>Operating temp. range</b>	-20°C to +50°C (-4°F to 122°F)	
<b>Humidity</b>	0-95% RH non condensing	
<b>Safety certification</b>	Ex95C2348X, Ex95C2349, Ex95Y1350	

<b>Approval codes</b>	Europe	EEx ia IIC T3 or T4 according to battery pack
	USA and Canada	Class 1 Division 1, Groups A,B,C,D
<b>Standards</b>	Europe	EN50014, EN50020, EN50018
	USA and Canada	UL 913, CSA 22.2
<b>Ingress protection</b>	IP66	
<b>RF radiation</b>	Tested to EN55022 class B and meets EN50081-2	
<b>RF immunity</b>	Tested to IEC801-3 and meets EN50082-2	
<b>PC interface</b>	PC access is achieved through an RS232 serial link by locating the instrument interface. The Windows™ Setportable is then used to alarms, levels of alarm (3 2 descending 1 ascending) and the password. Logmanager controls datalogging, giving the user a choice of direct graphical output or a datafile spreadsheets.	
<b>Autocalibrator</b>	Custodian can be routinely calibrated quickly and simply using Autocalibrator. Autocalibrator handles up interface provides easy datalogging for proof of calibration.	
<b>Accessories</b>	Carry case Earpiece Pocket clip Belt bracket and waist strap Chest harness Shoulder strap Aspirator	Manual bulb and 2 m hose, both non-absorbent and hydrocarbon resistant. 1 m probe, water trap and extra hose available

