Tetra 3

Portable Gas Detection Equipment

- Robust
- User friendly
- Effective warning
- Reliable
- 3 year oxygen sensor

Tetra 3

Four Gas Personal Monitor

When lives and property are at risk and you need gas detection equipment that is totally reliable, you need Crowcon. For over 45 years Crowcon has been developing and manufacturing high quality products with a reputation for reliability and technical innovation.

Crowcon provide both single gas and multigas monitors for personal safety and portable monitoring applications providing protection against a wide range of industrial gas hazards. The Tetra 3 offers you compliance, robustness and a low cost of ownership in a simple to use solution.

Choosing the portable gas detector for your needs

Single button operation, small size and clear top-mounted display make the T3 a favourite in the market amongst those working in today's most arduous industrial environments.

Designed with the user in mind, the top mount display, full function data and event logs, audible, visual and vibrating alarms deliver top end performance in a small and lightweight package. Gases include the most common four (carbon monoxide, methane, oxygen and hydrogen sulphide), but also an expanded range: ammonia, ozone, sulphur dioxide, hydrogen filtered carbon monoxide (for steel plants), hydrogen cyanide, other flammable gases and IR carbon dioxide (for safe area use only).

Robust

Rugged impact resistant design provides extra shock and vibration protection	
Water and Dust resistant to IP65 and IP67	Provides protection in the harshest environments
Can be submerged in water	

Effective Warning

95 dB audible alarm	
Vivid red/blue visual alarm	Ensures prompt evacuation from hazard zone
Vibrating alarm	

Reliable

Proven sensor technology and software operation	
Clear calibration-due warning	Covers you over an extended shift
Lithium-ion battery provides 14 hours continuous operation from a single charge with no memory effects	

User friendly

Single button operation for all functions	Can be operated with gloved hands
Top mounted, backlit display of all gas readings, diagnostics and battery life	'At a glance' operating status

Please see the back page for full technical specifications.

T3 Gas Tester

With an increased focus on regular bump testing of gas detection instruments both through regulation and individual company requirements, bump testing has become even more important to ensure safety for users.

The T3 Gas Tester offers a solution that ensures compliance. By checking the sensors respond to a known concentration of gas and utilising the T3 instrument's internal functionality, it makes it a cost-effective, fast and simple solution.

Bump testing exposes each sensor to a known concentration of gas to confirm that it responds correctly and to ensure that the unit is working correctly. If it is found not to be working, then the T3 Gas Tester flags the need for the instrument to be re-calibrated or serviced.

The T3 Gas Tester allows bump testing of Tetra 3 instruments fitted with methane, oxygen, carbon monoxide and hydrogen sulphide sensors. The tester can bump all four gases in the instrument within 60 seconds. Using a fixed flow regulator reduces the cost of testing, allowing approximately 140 bumps per 34L cylinder of quad gas.

Fast and simple to use

Automatic detector recognition	Test indicated automatically
Automatic gas delivery	Confident the correct gas volume has been delivered

Reliable

Rugged and robust	Durability for harsh environments
Maintenance free	Low cost of ownership

Flexible

Wall, desk and DIN rail mountable	
Suitable for in-field and on-site gas testing	User configurable
Stand alone unit	
Fast and simple to use	

Part Ordering Information:

GT-T3-01	Gas Tester Kit 1 (includes tester and 1m inlet tubing)	C03052	Fixed flow regulator (0.5 l/min)
GT-T3-02	Gas Tester Kit 2 (as Kit 1 plus fixed flow regulator)	AC0510	Gas cylinder holder
GT-T3-03	Gas Tester Kit 3 (as Kit 2 plus gas cylinder holder)	AC0301	1m inlet tubing

T3 Product Specification:

Size		114 x 71 x 48mm (tapers to 20mm) (4.5 x 2.8 x 1.9ins)
Weight		295g (10.4oz)
Alarms	Audible	95dB multiple alarm sounds allow selection of distinctive tones for different alarm levels
	Vibrating	Internal vibrating alarm
Display		Graphic LCD with backlight, giving simultaneous display for all gas channels. Graphic symbols for battery (with proportional indication of remaining operation time), healthy operation or fault warning. Start up indication when calibration is due, overdue, or service required.
Display mode	Normal display	Real time gas concentration levels
	Display recall	Peak readings and TWA
Data logging	Timed datalogging	50 hours at 1-min data rate ($>$12,000 data logs of 4 channels)
	Threshold logging	Starts after adjustable pre-set level
	Event logging	$>$5,000 events
Battery		Rechargeable Li-ion battery
Operating time		Based on four-gas instrument fitted with flammable sensor: A 5 hour charge from flat provides at least 12 hours of continuous use. A 12-hr charge provides 14 hours of continuous use
Sampling		Diffusion or hand aspirator
Operating temp range		-20°C to +55°C (-4°F to +131°F) *
Humidity		15-95% RH non-condensing **
Ingress protection		IP65 and IP67
Certification	Europe	ATEX II 2 G Ex ia d IIC T4 Gb (-20°C ≤ Ta ≤ +55°C) BASEEFA05ATEX0187
	International	IECEx Ex ia d IIC T4 Gb (-20°C ≤ Ta ≤ +55°C)BAS05.0059
	North America	CSA Class I Division 1 Groups A, B, C and D
Safety standards	Europe	EN60079-0, EN60079-11, EN60079-1, 94/9/EC
	North America	CSA22.2, 152
	Operating standards	EN50270, EN50271, EN50104, EN45544, EN60079, IEC61508
PC interface		RS232 connection from interface module in charger RS232/USB converter available
Calibration		Can be routinely calibrated using Portables PC
Accessories		Integral alligator clip
Optional accessories		Universal harness plate, shoulder strap, chest harness, aspirator assembly (flow plate, bulb and 2m/6ft tubing), fixed and telescopic sample probes, and an in-line water trap
Charging options		Single way drop-in charger with multi-region power supply (UK, USA, EU & Australian plug adaptors included) or inline 110V/220V supply; Single way drop-in charger with options as above including PC interface; 5 way multi-charger with universal power supply; Vehicle adapter for in-vehicle charging; Universal charger with status indication for vehicle, wall or desk mounting; can be used with multi region power supply or vehicle charging lead.

*Toxic and oxygen sensors are not rated for continuous operation at high temperatures. Consult Crowcon if operating temperatures are likely to exceed 40°C (104°F) for extended periods.
** Toxic and oxygen sensors RH specifications vary, consult Crowcon for specific operating humidities

T3 Gas Tester Specification:

Size	125 x 185 x 80mm (4.9 x 7.3 x 3.1ins)
Weight	250g (8.8oz)
Instrument supported	T3
Gases supported	CH4, CO, H$_2$S and O$_2$
Test time	Typically 30 seconds
Tests performed	Sensor response to gas Visual alarm Audible alarm General pass/fail indication
Automatic gas delivery	0.5 litres/minute (l/min)
Gas inlet/exhaust	1/1
Accessories	Tubing, gas cylinder holder, fixed flow regulator

Gases and ranges

Ranges and alarms vary by country and application; these can be configured as required. Each channel can have two instantaneous alarms. Toxic channels also have TWA alarms. Flammable gas calibration is available for methane, propane, butane, pentane, hydrogen and ethylene as standard.

Gas	Range	Typical Alarm (UK)
*Flammable	0- 100% LEL	20%
Oxygen (O$_2$)	0-25%	19/23.5%
Hydrogen sulphide (H$_2$S)	0-100ppm	5ppm
Carbon monoxide (CO)	0-500ppm	30ppm
Sulphur dioxide (SO$_2$)	0-20ppm	1ppm
Ozone (O$_3$)	0-1ppm	0.1ppm
Ammonia (NH$_3$)	0-100ppm	25ppm
**Carbon dioxide (CO$_2$)	0-5%	0.5%
Carbon monoxide (CO) H$_2$ compensated	0-500ppm	30ppm
Hydrogen Cyanide (HCN)	0-30ppm	10ppm

* Methane, Pentane, Propane, Butane, Ethylene, Hydrogen and others available, contact Crowcon for further options

** T3 is available in a safe area CO$_2$ version offering 0-5% carbon dioxide measurement. The CO$_2$ sensor replaces the flammable option and can be supplied with oxygen and toxic sensors.