



Multifunction Flue Gas Analysers

All round better performance in one

Differential Temperature

Gas System Integrity Test



Flue Gas Analysis

> CO Room Test

Draft and Differential Pressure Gas Escape Test





Multifunction flue gas analysers

Reflecting over 30 years experience in flue gas analysis, the Sprint V range is designed to assist heating engineers in the safe installation, commissioning and servicing of boilers and other combustion systems. Offering measurement of the full range of relevant gases, including

oxygen, carbon monoxide, nitric oxide and carbon dioxide, plus excess air and ${\rm CO/CO_2}$ ratio calculation, Sprint V is compact, lightweight and easy to use.



Product Benefits

Fully compliant with current safety standard BS 7967, a large display and graphical mobile phone style menu gives quick access to 5 different test modes all in one instrument, including:

- Flue gas analysis for net or gross efficiencies
- Gas system leak testing via high accessibility 'searchlight' probe
- Draught and differential pressure testing

- CO room testing to assess the safety of installed appliances
- Differential temperature testing of heating flow and return

To give further flexibility, each Sprint V holds up to 10 different fuel types in its internal database, ranging from natural gas to wood pellets, which along with language, are adapted to suit the requirements in a specific area.

To minimise servicing and maximise engineer's time, Sprint V's Smart Purge technology removes potentially acidic gases while other tests are conducted. Further protection is provided via a unique, split chamber water trap that operates in any orientation and an easily changed filter. These are provided as standard with the flue gas probe, along with an insertion locator that aids correct sampling.



Magnetic mounts incorporated in Sprint V's protective rubber boot enable handsfree operation, a feature that extends to the optional IR linked printer. This allows engineers to print reports with customer's details, test data, fuel type, appliance and date/time, along with an approval box for signatures.

To aid report management, 200 stored reports can be recalled onscreen or easily downloaded to a PC or PDA via a USB cable or optional Bluetooth™ link (Sprint V3 and V5). As a customisable PDF file, these A4 reports offer extra functions including company specific headers and next service date reminders.

> 0-10,000ppm natural gas

Gas Escape Probe





Specification						
Parameters	Range	Resolution	Accuracy	Detection limit	Response time (t90)	Recovery time
Oxygen	0-25%	0.1%	± 0.2%	0.3% v/v	50 sec	30 sec
Carbon Monoxide	0-4,000ppm	1ppm	<100ppm	3ppm	45 sec	60 sec
(H ₂ compatible)			± 3ppm >100ppm ± 3% of measured value			
Nitric Oxide	0-1,000ppm	1ppm	±1ppm	1ppm	30 sec	30 sec
Carbon Dioxide (calculated)	0-25%	0.1%	± 0.2%	0.2%v/v	50 sec	30 sec
Pressure (mbar, PSI, Pa, hPa, kPa, mmWG, inWG, mmHg, inHg as standard)	±200mBar	<20mBar 0.01mBar >20mBar 0.1mBar	±0.5mBar			
Temperature	-50° - 1100°C (-58° - 2012°F)	± 1°C	± 1°C or 0.3% of reading (best figure)	-	THE CO.	
CO/CO ₂ Ratio	0-0.9999	0.0001			A OF	
Excess Air	0-250%	1%		1		
Efficiency	0-120%	0.1%				

Specification	
Weight	440g (0.97 lbs)
Dimensions	75 x 168 x 65mm (3 x 6.6 x 2.6 inches)
Operating temperature range	-10°C to 50°C (14°F to 122°F)
Operating humidity range	0 to 95% non-condensing
Display	Large graphic blue back lit LCD
Backlight	Intelligent ambient light controlled or settable
Operating time	9 hours
Recharge time	6 hours
Charger/power supply	Mains power pack, available with UK, European or US pins, optional vehicle lighter socket lead. (C012096)
Charger input voltage	115V or 230V 50/60Hz AC
Enclosure - ingress protection	IP42 - robust protective rubber boot complete with built in magnet
Warranty	2 years
Probe specification	Standard efficiency flue probe, insertion length 250mm (9.9") with adjustable depth gauge maximum temperature 800°C (1472°F) Construction: Ergonomic pistol grip with stainless steel shaft and in-built thermocouple Protective sheath for thermocouple length 2500mm (9.9')

Function	Functionality	V2	V3	V4	V5
Standard fuels - selectable from menu*	Natural gas, LPG, heavy oil, light oil, coal, bagasse, biomass, wood, coke and wood pellets (others on request)	✓	✓	✓	✓
Menu	Easy menu navigation and simple soft key operation.		√	1	√
Function buttons/key pad	5 button keypad	1	✓	1	1
Alarm	Carbon monoxide audible and screen alarm for danger levels	1	√	1	1
Smart purge	Intelligent pump speed control. Built-in flow fail and blockage indication	/	/	✓	1
Carry case	Handy and durable kit hold-all supplied as standard	✓	√	1	✓
Water trap/filter	Combined twin chamber high capacity water trap and particular filter, protects instrument from damage	✓	✓	✓	✓
Standards	BS7967	/	✓	✓	✓
Calibration due	2 week calibration due warning provided by instrument	1	✓	✓	✓
Data logging reports	Up to 200 reports, depending on type. Log recall on-screen. Output log to PC.	√	✓	✓	✓
Bluetooth™	Communication to PDA and PC		✓		✓
Flue gas measurement	CO, CO $_2$, CO/CO $_2$ ratio, effiency (gross, net or net condensing), oxygen, XSAir, temperature (°C or °F)	✓	✓	✓	✓
	NO and NOx flue gas capability			/	1
Pressure and differential pressure	Differential pressure & dedicated, gas leakage pressure tests.	/	/	/	/
Differential temperature	Differential temperature with single or twin probes	1	/	1	1
Carbon monoxide room test	Dedicated carbon monoxide room build up test or BS7967 CO room safety tests	√	/	/	/
Gas escape test	Via gooseneck sensor probe fitted with ultra-bright white LED searchlight	Option	Option	Option	Option

^{*} In some applications additional external filtering may be needed



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(A division of Crowcon Detection Instruments Ltd)

