

## Specifications and optional extras



Product Specifications:			
Parameter	Resolution	Accuracy	Range
Carbon Monoxide (Infrared)	0.001% +/-0.5% volume *1	+/-5% of reading *1 Over-range 20%	0-5%
Oxygen (Fuel Cell)	0.01%	+/-5% of reading *1 +/-0.1% volume *1	0-21% Over-range 20%
Hydrocarbon *2 (Infrared)	1ppm +/-12% volume *1	+/-5% of reading *1 Over-range 10,000ppm	0-2,000ppm
Carbon Dioxide (Infrared)	0.1% +/-0.5% volume *1	+/-5% of reading *1 Over-range 20%	0-16%
NOX *3 (Fuel Cell)	1ppm	0-4,000ppm +/-4% or 25ppm 4,000-5,000ppm +/-8%	0-5,000ppm
Oil Temperature (Optional: only on some models)	1.0°C/F	±2.0°C ±0.3% of reading ±3.6°F ±0.3% of reading	0-150°C 32-302°F
RPM (Optional: only on some models)	1ppm	50rpm	200-4,000rpm
Lambda	0.001		0.8-1.2
AFR (Petrol)	00.01		11.76-17.64
(LPG)			12.48-18.72

- \*1 Using dry gases at STP
- \*2 Applies only to Petrol and LPG
- \*3 Applies to 5 Gas models only

Sensor response T <sub>95</sub> (Class 1)	15 seconds
Pre-programmed Fuels	Petrol, LPG and CNG.
Dimensions	
Weight	1.1kg
Handset	220 x 55 x 120mm
Probe	Insertion depth 350mm x Diameter 15mm Clip handle to secure to exhaust, 4m long hose
Ambient Operating Range	+5°C to +40°C/10% to 90% RH non condensing
Storage temperature	Minimum: 0°C Maximum: +50°C
Battery Charger	Input: 110Vac/230 Vac nominal Output: 10 Vac off load
Analyser battery run time	>4 hours from full charge with the pump running

### Optional Extras

32425000	Infra Red Printer
32427000	Stainless Steel Probe
32426000	NOX upgrade
32425500	Professional Carry Case



\*Kit shown includes printer and professional case (These are optional extras).

# Hand Held Gas Analysers

## Go anywhere - Use anywhere



 **Sykes-Pickavant®**

Walsall Road, Cannock, Staffordshire, WS11 3JR, UK  
 Sales & Customer Service: + 44 (0)1922 702200  
 Facsimile: + 44 (0)1922 702201  
 Export Enquiries: + 44 (0)1922 702250  
 Export Facsimile: + 44 (0)1922 702251  
 Technical Enquiries: + 44 (0)1922 702222  
 email: uk\_sales@sptools.co.uk  
 www.sptools.co.uk

Distributor:



**Sykes-Pickavant®**

## Hand Held Exhaust Gas Analyser

Across the world, technicians, mechanics and garage owners depend on our products, and we have built an enviable reputation for high quality and outstanding service.

Servicing requires specialised equipment, and we are respected as a leader in electronic and service products.

An ideal product for engine fault diagnosis, tuning and pre compliance testing, the Sykes Pickavant range of 4 gas and 5 exhaust gas analysers, are truly portable and set new standards of convenience and ease of use.

The range comprises of a standard 4 and 5 gas model and a recently introduced OIML Class 1 version - This being the first hand held exhaust gas analyser to achieve this high international standard.

### So easy to use

Once the analyser has been set-up, there is no need for daily setting or configuration. The analyser weighs just 1.1 kg, and fits comfortably in the hand and because of its size it doesn't need expensive on site servicing.

### Measures

Carbon Monoxide, Hydrocarbons, Carbon Dioxide and Oxygen. Nitrogen Oxides measurement is available on 5 gas models and can be fitted retrospectively to 4 gas models.

### Fast start up

The analyser is ready to go in just 150 seconds from first power on. Re-zeroing takes just 30 seconds.

### Full IR Measuring Bench

Unlike some portables which calculate CO2 the IR gas measuring bench measures all three IR gases (CO, HC and CO2) to give true 4 or 5 gas capability. Oxygen and NOX are measured using automotive electrochemical sensors.

### Logging and Auto-logging

The analyser can store up to 255 sets of full test results in its internal memory. Test results can be recorded manually by the press of a key, or automatically timed so that during a drive test no driver intervention is required. They can then be downloaded to a PC (Using optional software).

### PC compatible

The analyser also provides an RS232 output so that using optional PC software data can be displayed on a PC screen and the PC's printer can be used to produce high quality test reports. NB Software available December 2002.



### Long life battery

A fully charged battery has the capacity to allow the analyser to be used all day without the need to recharge. The battery can be charged via the mains or a vehicles 12 volt battery.

### Additional features

Lambda/AFR measurement  
Corrected CO  
Language options include English, French, German, Italian & Spanish. Additional languages available.

### Nitrogen Oxides (NOX) Testing

The testing of Nitrogen Oxides is becoming more relevant. In order to achieve a "NOX" reading the vehicle being tested needs to be under a load. This would normally involve using a dynamometer or taking your gas analyser with you on a road test. With a Sykes-Pickavant hand held analyser this is a simple and easy operation. The built in "Auto store" facility will automatically take and store up to 255 tests that can be recalled, printed and analysed at a later date.

### Portable printer - 32425000

The analyser includes an integral IR transmitter that is compatible with a small battery powered portable printer so that results can be recorded anywhere.



Class 1 (5 gas) 32424200

### OIML Class 1 Analysers

All analysers are designed and built to a very high specification. It is sometimes required that for testing exhaust emissions on vehicles in certain countries, that only an analyser that complies with a recognised international standard may be used. The advantages of using the OIML Class1 analyser are, that in addition to all the functions of the standard unit, the OIML Class 1 analysers can measure engine RPM, Oil Temperature and it has a faster response time.

## Diagnostic Benefits

Using the gas analyser as a diagnostic tool enhances its use. Some key faults that have an effect on gas analysis are:

- |                    |                              |
|--------------------|------------------------------|
| 1 Rich Mixture     | 5 Tight Valve Clearance      |
| 2 Weak Mixture     | 6 Incorrect Ignition Timing  |
| 3 Ignition Misfire | 7 Incorrect Valve Timing     |
| 4 Fuel Misfire     | 8 Faulty Catalytic Converter |

In a busy multi-bay workshop there is no need to shuffle vehicles around to get them close to the 'big-box' analyser. Vehicles can even be tested outside on the forecourt and for difficult intermittent faults, exhaust gases can be sampled whilst the vehicle is being driven. This makes the analyser ideal for all types of repair, either in a workshop or mobile.

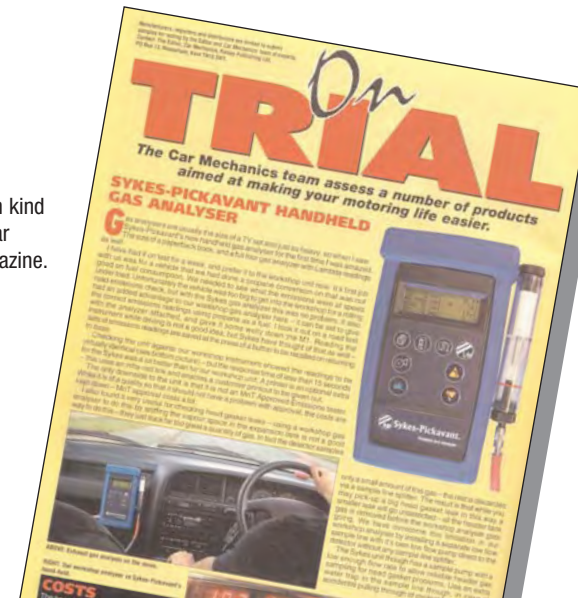
## What users and the press say...

"Kwik-Fit Hometune have been using this particular hand held gas analyser for 2 years and have over 100 units in daily use. During this time it has proved to be an ideal product for meeting manufacturer's recommendations relating to diagnostic and pre-MoT service work. It has proved to be convenient, easy to use, and more than a match for larger more expensive units."

**Jim Howard Regional Manager Kwik-Fit Hometune - The UK's largest mobile servicing company.**

## As featured in Car Mechanic's Magazine

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## Sykes-Pickavant Hand Held Gas Analyser Range

Product Selection:	OIML CLASS 1		Standard	
	32424200 5 Gas Analyser	32424000 4 Gas Analyser	32423200 5 Gas Analyser	32420000 4 Gas Analyser
Measured Gases	CO/CO2/O2/HC/NOX	CO/CO2/O2/HC	CO/CO2/O2/HC/NOX	CO/CO2/O2/HC
OIML Class 1 Certificate	✓	✓	Class 1 Accuracy	Class 1 Accuracy
Corrected CO	✓	✓	✓	✓
Test Result Storage - 255 Tests	✓	✓	✓	✓
Auto Store	✓	✓	✓	✓
PC Compatible	✓	✓	✓	✓
Infra Red Printer Compatible	✓	✓	✓	✓
Measures RPM 2, 4 Stroke, DIS	✓	✓		
Measures Oil Temperature	✓	✓		
Fast Warm Up (150 seconds)	✓	✓	✓	✓
Fuel Types: Petrol/LPG/CNG	✓	✓	✓	✓
Power Supply Internal Battery/12v/Mains	✓	✓	✓	✓
Carry case	✓	✓	✓	✓
Exhaust Probe - Standard		✓		✓
Exhaust Probe - Stainless Steel	✓		✓	