

# AGS-688

## EXHAUST GAS ANALYSER FOR PETROL ENGINES



OIML R 99 - ISO 3930 CLASS 0

ELECTROMAGNETIC CLASS E2



## AGS-688

is a gas analyser used to measure **gas concentrations in the exhaust of petrol engines**.

It can be used both for exhaust check in periodic mandatory tests and for ordinary service and maintenance operations on petrol engines.

## AGS-688 Operating Modes

The device samples the exhaust gas by means of its probe, supplied as a standard.

By means of its simple keyboard, it is possible to perform all of the analyser's functions, and easily switch from the free measurement mode to the official exhaust test.

The **AGS-688** comes with 6 backlit LCD units, where test data are displayed.

At the end of the exhaust gas test, it is possible to directly print the test results, or send them to a PC connected to the gas analyser.

Connections to power supply, to RPM and temperature probes (with cable or wireless) to an external PC (via cable or wireless), are also present on the rear of the device.

## New Pneumatic Unit

The completely new **Water Separator Group** is injection moulded, in order to reduce the gas path's length and maintenance times.

The separation filter consists of two sections: a mechanical filter and a coalescent (condensation) one.

A single axle, dual-head pump allows for continuous removal of the water which condenses into the separator.

**AGS-688** has exhaust gas and fresh air (autozero) inputs, and also a dedicated inlet for calibration with reference gases.

## AGS-688 Plus Features

The **AGS-688** was designed as a basic exhaust gas analyser; nevertheless, its wide range of optional accessories allows for a rich set of additional functions:

- An integrated RPM meter is available, which can support any of these choices: induction clamp, capacitive clamp or MGT-300.
- By adding a radio module in **AGS-688** expansion slot it is possible to connect the wireless MGT-300/R RPM meter.
- It is possible **AGS-688** to connect to a PC via RS232, USB or with a BT-100 Bluetooth® module.
- **AGS-688** allows for connection to the smokemeter through the omniBUS port: in this case the analyser behaves like a terminal to the smokemeter, where opacity of diesel exhaust can be displayed.

## Technical Features

### Measuring Range:

CO.....	FROM	0	TO	9.99	%vol	Res. 0.01
CO <sub>2</sub> .....	FROM	0	TO	19.9	%vol	Res. 0.1
HC HEXANE.....	FROM	0	TO	9999	ppmv	Res. 1
O <sub>2</sub> .....	FROM	0	TO	25	%vol	Res. 0.01
NoX.....	FROM	0	TO	5000	ppmv	Res. 1
Lambda.....	FROM	0.5	TO	5		Res. 0.001 RPM
(INDUCTIVE/CAPACITIVE CLAMP).....	FROM	300	TO	9990	RPM	Res. 10
OIL TEMPERATURE.....	FROM	20	TO	150	°C	Res. 1

Measuring bench: Sensors AMB2

Measured gas sampling rate: 4 l/min (with a 6 m sampling hose)

Automatic and continuous condensed water removal

Semi-automatic leak test, with manual probe closing

Automatic flow check with minimum flow alarm

Automatic O<sub>2</sub> sensor operating life checking (< 5 mV)

Protective filters for gas/water pump heads, externally mounted for easy service, without removal of official seals

Automatic ambient pressure compensation, from 850 to 1060 kPa

Calibration by means of reference gas cylinder

Automatic autozero

Warm-up time at 20°C: 10 min. max

Response time for CO, CO<sub>2</sub> and HC < 15 seconds

### Connections:

RPM reading via inductive or capacitive clamp PT100 (DIN43760) oil temperature probe input

RPM/oil temperature reading via RS232; 433 MHz radio receiver (optional)

Serial connections: PC via USB B (slave mode); PC via RS-232 (9600,N, 8,1); PC via RS-485 network (9600,N, 8,1)

Software programming/update via RS-232

Combi mode available with OPA-100 smokemeter

Integrated 24-column thermal printer

12 Vdc typ (11-15 Vdc) power supply

1.5 A power consumption (3A when printing)

Operating temperature: from 5 to 45°C

Dimensions: 434x190x291 mm

Weight: 5kg approx

## Configurations with Other Devices

**AGS-688** + inductive clamp and oil temperature probe + PSI-40 (Switching power supply)

**AGS-688** + MGT-300 rpm/temperature meter (via cable or radio or Bluetooth®)

**AGS-688** + MGT-300 rpm/temperature meter (via cable or radio or Bluetooth®) + OPA-100 smoke meter + PSI-50 (PC connection via RS-232 or USB or RS-485)

## Standard Sale Configuration

> **AGS-688.** Stand-alone gas analyser module

Exhaust sampling hose and probe

Oxygen sensor

Thermal printer paper roll 57 mm Ø 30 mm