

# AGS-690

## EXHAUST GAS ANALYSER FOR PETROL ENGINES



OIML R 99 - ISO 3930 CLASS 0  
ELECTROMAGNETIC CLASS E2  
DIR. 2004/22/EC - MID

## AGS-690

**Essential** and **user-friendly** gas analyser. **AGS-690** can be used for both exhaust check in **mandatory inspections** and for **routine service** and repair operations on vehicles.

### OPERATING MODES

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

By means of the interaction with the specific Brain Bee **OMNIBUS 800** software it is possible to perform all of the analyser functions and easily switch from the free measurement mode to the official test.

The operating principle is based on the measurement of the absorption degree by infrared rays of gases which are present in the sample during the analysis.

**AGS-690** – thanks to its high accuracy technology – is able to assess absorption on the several frequency bands of the components - CO, CO<sub>2</sub>, HC – thus obtaining the associated concentration values. Concentrations of Oxygen and NO<sub>x</sub> (optional) are measured by electrochemical sensors.

### THE PNEUMATIC UNIT

The 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-690** has exhaust gas and fresh air (autozero) inputs, and also a dedicated inlet for calibration with reference gases.

### AGS-690 PLUS FEATURES

The **AGS-690** 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 EVO.
- The external radio module allows for the wireless connection to the MGT-300 EVO RPM meter.
- It is possible to connect to a PC via RS232, USB or with a BT-100 Bluetooth ® module.
- **AGS-690** 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.

## MEASURING FIELDS

CO	0	÷ 9.99	%VOL	RES. 0.01
CO2	00	÷ 19.9	%VOL	RES. 0.1
HC HEXANE	000	÷ 9999	PPMVOL	RES. 1
O2	000	÷ 25	%VOL	RES. 0.01
NOX	000	÷ 5000	PPMVOL	RES. 1
LAMBDA	0.5	÷ 5		RES.0.001
(INDUCTIVE/CAPACITIVE CLAMP	300	÷ 9990	RPM	RES. 10
OIL TEMPERATURE	20	÷ 150	°C	RES. 1

## TECHNICAL FEATURES

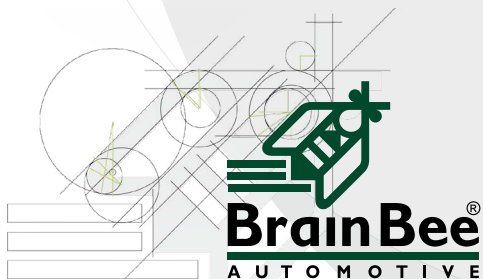
MEASURING BENCH	AMB2 SENSORS
MEASURING GAS SUCTION	4 L/MIN.
CONDENSED WATER PURGE	AUTOMATIC AND CONTINUOUS
TIGHTNESS TEST	SEMIAUTOMATIC
FLOW CONTROL	AUTOMATIC WITH MINIMUM FLOW ALARM
CONTROL OF SPENT O2 SENSOR	AUTOMATIC (< 5MV)
PROTECTIVE FILTERS FOR GAS/WATER PUMP HEADS,	EXTERNALLY MOUNTED FOR EASY SERVICE, WITHOUT REMOVAL OF OFFICIAL SEALS
AUTOMATIC COMPENSATION OF AMBIENT PRESSURE	850 ÷ 1060 KPA
CALIBRATION	WITH SAMPLE GAS BOTTLE
AUTOZERO	AUTOMATIC
HEATING TIME TO 20 °C	10 MIN. MAX
CO, CO2 E HC RESPONSE TIME	< 10 SEC.
O2 RESPONSE TIME	< 60 SEC.
PRINTER	NO
DISPLAY	NO
CONNECTIONS	RPM READING VIA INDUCTIVE OR CAPACITIVE CLAMP
	PT100 (DIN43760) OIL TEMPERATURE PROBE INPUT
	RPM/OIL TEMPERATURE READING VIA 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
POWER SUPPLY	12 VDC TYP (11-15VDC)
POWER CONSUMPTION	1.5 A
OPERATING TEMPERATURE	5 ÷ 40 °C
DIMENSIONS	360 X 280 X 288 MM
WEIGHT	5 KG

### HOMOLOGATIONS

TYPE APPROVED MID (MEASURING INSTRUMENT DIRECTIVE)  
2004/22/CE NMI 0122 B+D

CE MARKING SUPPLEMENTARY METROLOGY MARKING

FURTHER APPROVALS IN THE FOLLOWING COUNTRIES: ITALY



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