

# GAS ANALYZER & SMOKEMETER

The gas analyzer is a modern equipment, prepared and ready to meet the requirements of OIML Class 1 and O, ISO 3930, UNE 82501, bar 90, bar 97, U.S. EPA ASM.

The software presents the concentration of the gases and the r.p.m. in numerical form.

Based on infrared technology it measures up to 5 gases; CO, CO<sub>2</sub>, HC, O<sub>2</sub> (NO<sub>x</sub>, optional), and other parameters such as corrected Lambda CO, oil temperature and rpm

It is very useful for detecting ignition and injection problems as well as for improving fuel consumption.

Dual exhaust measurement capability

Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles.

Adapted to measurements of GLP, GNC and GNL

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**MEASUREMENT**

**CO, CO<sub>2</sub>, HC, O<sub>2</sub> NO<sub>x</sub>**

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Possibility of integration

**EOD Equipment**

**Software adaptations**

Possibility of analysis and study, under budget, for adaptation to new regulations in any region and/or country

## Standard Equipment

- Gas analysis module
- Sampling probe
- Control cabinet
- Temperature gauge

## Software

- Adapted to current standards for vehicles with dual exhaust systems, and possibility of two measurements
- Sending and processing data and graphics in real time
- Possibility of sending encrypted data to the server using the AES encryption method (Advanced Encryption Standard)
- 100% compatible with management systems and databases
- Assigning permissions to different user levels
- Possibility of assigning the results obtained to a vehicle plate before or after each test
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Very intuitive control software guided by graphic icons
- Common database (on network as well as in local mode) that's allows us to save all client and vehicle data and have easy access to them to be able to make comparisons between old and new tests.
- Customized advertising on screen
- Database that allows to store cards with customer and vehicle data. All tests are registered and easy to search.
- Translation module through which the user can translate the program into their own language
- Connection RS-232 y Ethernet



Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

### Best Processors

New high-speed processor  
Increase the response and process of each vehicle test

**RAM memory**  
New memory 16 times faster

### Increased Connections

Connections Ethernet (TCP-IP) / RS-232 Wifi on the main board

**Flash Memory**  
New memory 4 times faster

**Electronics**

## Technical Data

Gases	CO, HC, CO <sub>2</sub> , O <sub>2</sub> y (NOx optional)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C a 70 °C
Operating temperature	-5 °C a 45 °C
Operating pressure	750 - 1.100 mbar (1000 mbar nominal)
Automatic removal of water and particles	>5 µ.
Power Supply	220 V a 50 Hz
Oil temperature gauge	0 - 150 °C ; resolution 1°C
R.P.M. Meter	0 - 9990 ; 10 r.p.m.
Lambda	0,001 ó 0,01 ; configurable
Complies with UNE 82.501, OIML R class 1 and 0, ISO 3930, BAR 90, BAR 97, US. EPA ASM	
It has a database and rejection assessment	












## Measurement range and Resolution

HC	0-20.000 p.p.m.	1 p.p.m
CO	0-10 % vol.	0,01 % vol.
CO <sub>2</sub>	0-21 % vol.	0,1 % vol.
O <sub>2</sub>	-0,5 - 21,7 % vol.	0,1 % vol.
NOx	0-5.000 p.p.m.	1 p.p.m.

## Dimensions

<b>Gas equipment dimensions</b>	<b>400 x 400 x 190 mm.</b>
Dimensions of packed gas equipment	570 x 470 x 190 mm.
Weight packed equipment	10 kg.
<b>Cabinet dimensions</b>	<b>730 x 580 x 1.530 mm</b>
Packed cabinet dimensions	1.200 x 800 x 380 mm.
Weight of the packed cabinet	90 kg.

## Optional Equipment

	Multi-function wireless device, keyboard, mouse and remote control
	GEN-TD Data display terminal
	GEN-STD Second Data display terminal
	GEN-EST Voltage Stabilizer
	GEN-ENAC ENAC certified
	AG-CAL Electro-pneumatic adaptation for self-calibration by means of internal standard gas bottles
	RY3 R.P.M. and Accessories kit for r.p.m. measurement
	868800 R.P.M. y Accessory kit for RPM measurement
	GEN-EOB EOBD kit, integration with gas equipment and software

## Software



**More Productive**  
Repetition of partial tests



**Safer**  
Ryme application can encrypt data, make them safer



**More Intuitive**  
Incorporation of graphic icons. RYME applications share the same menus..



**More Compatible**  
Compatibility with more than 95% of the database management systems on the market today, ORACLE, SQL SERVER, Postgre, SQLite, etc. OS support for 32 and 64 Bits and with Android, Windows...



**Online support**  
Possibility of remote connection from our technicians with your equipment  
*Consult conditions*



**More Reliable & Precise**  
Improvement in the process of calibrating the main board Allows the adjustment of the weighing and force calibration to very precise values.



AG-NOX Sensor NOx



AG-AH SMOKEMETER kit with Commissioning Certificate Module F

GEN-RPM Bluetooth

AG-2S Gas inlet hose with double probe



AG-ATE Motorcycle Exhaust Adapter Kit



GEN-SSA Software for sending encrypted and non-encrypted measurements that guarantees the saving of the results of each test and their sending to the management program even in possible power cuts or other...

Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

The Smokemeter is a modern equipment, prepared and ready to meet the requirements of UNE 82503 and DIN 57411, SAE J1677 USA / Canada.

It is a partial flow meter based on the principle of light absorption by smoke. It allows to perform an official opacity test guided step by step through the program.

It has a configuration module that allows to consult and modify the operation parameters. Its access is done through a password as a security measure for the authorized technical personnel.

It can be connected in an Ethernet network. It allows the sending of measurement data to a central computer that receives and manages the information obtained from various machines creating complete reports, as well as a database of vehicles and clients.

Possibility to adapt the software to the internal regulations of the technical inspection of vehicles.

## Temperature and r.p.m. meter

Certification and commissioning  
**Module F**

**Auto Zero Automatic**



### Software adaptations

Possibility of analysis and study, under budget, for adaptation to new regulations in any region and/or country

## Standard Equipment

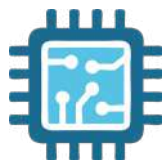
- Smoke analyzer module
- Sampling probe
- Control cabinet
- Commissioning certificate for module F SMOKEMETER
- Temperature and rpm meter

## Software

- Auto zero automatic
- Sending and processing data and graphics in real time
- Possibility of sending encrypted data to the server using the AES encryption method (Advanced Encryption Standard)
- 100% compatible with management systems and databases
- Assigning permissions to different user levels
- Possibility of assigning the results obtained to a vehicle plate before or after each test
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Very intuitive control software guided by graphic icons
- Common database (on network as well as in local mode) that's allows us to save all client and vehicle data and have easy access to them to be able to make comparisons between old and new tests.
- Customized advertising on screen
- Database that allows to store cards with customer and vehicle data. All tests are registered and easy to search.
- Translation module through which the user can translate the program into their own language
- Connection RS-232 y Ethernet



## Electronics



### Best Processors

New high-speed processor  
Increase the response and process of each vehicle test



### RAM memory

New memory 16 times faster



### Increased Connections

Connections Ethernet (TCP-IP) / RS-232 Wifi on the main board



### Flash Memory

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## Technical Data

Environmental working conditions	Temperature: from 5 up to 40°C Humidity: 0-95 % Pollution: < 2%
Storage temperature	-32 °C a 50 °C
Optics	Light source Green LED 560 nm
Detector	Silicon Photodiode
Response time	de 10 % a 90%, 0,25 ms
Acoustic noise	53 dB
Warm-up period	3 - 6 min. depending on temperature
Standard Test Probe	800 mm. 10 mm. Ø
Opacity	Range of 0 - 9,99 m <sup>-1</sup> Resolution 0,01 m <sup>-1</sup>
Power Supply	220 V. 50 Hz

## Other Information

Official opacity test

Electronic test of measurement accuracy

Self-diagnosis of the equipment




Complies with the following standards: DIN 57.411, UNE 82.503, SAE J1677 US / CANADA

Measurement of opacity in % and absorption coefficient k calculated according to Beer-Lambert's law

## Dimensions

Smokemeter dimensions	500 x 250 x 450 mm.
Dimensions Smokemeter packaged	480 x 390 x 300 mm.
Weight packed equipment	8,5 kg.
Cabinet dimensions	730 x 580 x 1.530 mm
Packed cabinet dimensions	1.200 x 800 x 380 mm.
Weight Cabinet packed	90 kg.

## Optional Equipment

		Multi-function wireless device, keyboard, mouse and remote control
	GEN-TD	Data display terminal
	GEN-STD	Second Data display terminal
	GEN-ENAC	ENAC certified
	GEN-CPS	Commissioning certificate for Smokemeter
	GEN-LCS	Calibration lenses
	GEN-EST	Voltage Stabilizer
	GEN-LCS	Calibration lenses
	RY3	R.P.M. and Accessories kit for r.p.m. measurement

## Software



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Repetition of partial tests



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**Online support**  
Possibility of remote connection from our technicians with your equipment  
*Consult conditions*



**More Reliable & Precise**  
Improvement in the process of calibrating the main board Allows the adjustment of the weighing and force calibration to very precise values.



868800

R.P.M. y Accessory kit for RPM measurement



GEN-SAH

Extendable Smokemeter system for vehicles with vertical exhaust behind the cab.

Approved probe extension 1,8 m.

Approved probe extension 2,5 m.

Approved probe extension 3 m.



GEN-SSA

Software for sending encrypted and non-encrypted measurements that guarantees the saving of the results of each test and their sending to the management program even in possible power cuts or other...

The gas analyzer is a modern equipment, prepared and ready to meet the requirements of OIML class 1 and O, ISO 3930, UNE 82501, bar 90, bar 97, U.S. EPA ASM. The software presents the concentration of the gases and the r.p.m. in numerical form.

Based on infrared technology it measures 4 or 5 gases (CO, CO<sub>2</sub> HC, O<sub>2</sub>, NO<sub>x</sub>) and other parameters such as Lambda, corrected CO, oil temperature and rpm. It is very useful for detecting ignition and injection problems as well as for improving fuel consumption.

The SMOKEMETER is a modern equipment, prepared and ready to meet the requirements of UNE 82503 and DIN 57411, SAE J1677 USA / Canada.

It is a partial flow meter based on the principle of light absorption by smoke.

Adapted to measurements of GLP, GNC and GNL

## MEASUREMENT

CO, CO<sub>2</sub>, HC, O<sub>2</sub>, NO<sub>x</sub>

Certification and commissioning  
**Module F**



### Software adaptations

Possibility of analysis and study, under budget, for adaptation to new regulations in any region and/or country

## Standard Equipment

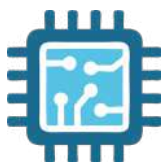
- Smoke analyzer module
- Gas analyzer module
- Sampling probe
- Control cabinet
- Commissioning certificate for SMOKEMETER modulo F
- Temperature and rpm meter

## Software

- Adapted to current standards for vehicles with dual exhaust systems, and possibility of two measurements
- Auto zero automatic
- Sending and processing data and graphics in real time
- Possibility of sending encrypted data to the server using the AES encryption method (Advanced Encryption Standard)
- 100% compatible with management systems and databases
- Assigning permissions to different user levels
- Possibility of assigning the results obtained to a vehicle plate before or after each test
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Very intuitive control software guided by graphic icons
- Common database (both in network and in local mode), which allows to store cards with customer and vehicle data. All tests performed are recorded and can be easily searched for comparison with new tests
- Translation module which the user will be able to translate the program into his own language or modify any sentence or word on it.
- Connection RS-232 y Ethernet



## Electronics



### Best Processors

New high-speed processor  
Increase the response and process of each vehicle test



### RAM memory

New memory 16 times faster



RS-232



Ethernet

### Increased Connections

Connections Ethernet (TCP-IP) / RS-232 Wifi on the main board



### Flash Memory

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## Technical Data Gas Analyzer

Gases CO, HC, CO<sub>2</sub>, O<sub>2</sub> y (NOx optional)

Lambda factor calculation and corrected CO

Storage temperature -50 °C a 70 °C

Operating temperature -5 °C a 45 °C

Operating pressure 750 - 1.100 mbar (1000 mbar nominal)

Automatic removal of water and particles >5 µ.

Power Supply 220 V a 50 Hz

Oil temperature gauge 0 - 150 °C ; resolution 1°C

R.P.M. Meter 0 - 9990 ; 10 r.p.m.

Lambda 0,001 ó 0,01 ; configurable

Complies with UNE 82.501 , OIML R class 1 and 0, ISO 3930, BAR 90, BAR 97, US. EPA ASM

It has a database and rejection assessment



## Measurement range and resolution of the gas analyzer

HC	0-20.000 p.p.m.	1 p.p.m
CO	0-5 % vol.	0,01 % vol.
CO <sub>2</sub>	0-20 % vol.	0,1 % vol.
O <sub>2</sub>	0-21,7 % vol.	0,1 % vol.
NOx	0-5.000 p.p.m.	1 p.p.m.

## Technical Data Smokemeter

Environmental working conditions Temperature: from 5 to 40°C  
Humidity: 0-95 %  
Pollution: < 2%

Storage temperature -32 °C a 50 °C

Optics Light source Green LED 560 nm

Detector Silicon Photodiode

Response time 10% a 90% 0,25 ms

Acoustic noise 3 - 6 min. according to temperature

Warm-up period 240 sg.

Standard test probe 800 mm. 10 mm. Ø

Opacity 0-999 m<sup>-1</sup> / Resolution 0,01 m<sup>-1</sup>

Power Supply 220 V. 50 Hz

Free measure

Official opacity test

Electronic test of measurement accuracy

Self-diagnosis of the equipment

Complies with the following standards: DIN 57.411, UNE 82.503, SAE J1677 US / CANADA

Measurement of opacity in% and absorption coefficient k calculated according to the Beer-Lambert law

## Software



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**More Reliable & Precise**  
Improvement in the process of calibrating the main board Allows the adjustment of the weighing and force calibration to very precise values.

## Dimensions

Dimensions smokemeter	500 x 250 x 450 mm.
Dimensions smokemeter packed	480 x 390 x 300 mm.
Weight packed equipment	8,5 kg.
Gas equipment dimensions	400 x 400 x 190 mm.
Gas equipment dimensions packed	570 x 470 x 190 mm.

Weight packed equipment	10 kg.
Cabinet dimensions	730 x 580 x 1.530 mm
Packed cabinet dimensions	1.200 x 800 x 380 mm.
Weight Cabinet packed	90 kg.

## Optional Equipment



Multi-function wireless device, keyboard, mouse and remote control

GEN-TD Data display terminal

GEN-STD Second Data display terminal



GEN-EST Voltage Stabilizer

GEN-ENAC ENAC certified

GEN-LCS Calibration lenses

AG-CAL Electro-pneumatic adaptation for self-calibration using internal standard gas bottles



RY3 R.P.M. and Accessories kit for r.p.m. measurement



868800 R.P.M. y Accessory kit for RPM measurement



GEN-EOB EOBD kit, integration with gas equipment and software



GEN-SAH Extendable SMOKEMETER system for vehicles with vertical exhaust behind the cab.



AG-NOX Sensor NOx

AG-2S Gas inlet hose with double probe



AG-ATE Motorcycle Exhaust Adapter Kit

Approved probe extension 745 mm.

Approved probe extension 2.345 mm.

Approved probe extension 3.840 mm.



GEN-SSA Software for sending encrypted and non-encrypted measurements that guarantees the saving of the results of each test and their sending to the management program even in possible power cuts or other...



The gas analyzer is modern equipment, prepared and ready to meet the requirements of OIML R99 Class 1 and 0, ISO 3930, UNE 82501, bar 90, bar 97, U.S. EPA ASM.

Adapted to current standards for vehicles with dual exhaust systems, and possibility of two measurements

## Standard Equipment

- Gas analysis equipment
- Graphic LCD display
- 5-key keyboard
- Thermal Printer
- Centralization output
- Keyboard input
- Petrol and diesel rev counter, oil temperature

## Technical Data

Gases	CO, HC, CO <sub>2</sub> , O <sub>2</sub> y (NOx optional)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C a 70 °C
Operating temperature	-5 °C a 45 °C
Operating pressure	750 - 1.100 mbar (1000 mbar nominal)
Automatic removal of water and particles	>5 µ.
Power Supply	220 V a 50 Hz
Oil temperature gauge	0 - 150 °C ; resolution 1°C
R.P.M. Meter	0 - 9990 ; 10 r.p.m.
Lambda	0,001 ó 0,01 ; configurable
Complies with UNE 82.501, OIML R class 1 and 0, ISO 3930, BAR 90, BAR 97, US. EPA ASM	
It has a database and rejection assessment	

## Measurement range and Resolution

MEASUREMENT	RANGE	NORMAL	HIGH
HC	0 - 20.000 p.p.m. vol. Kex	1 p.p.m.	1 p.p.m.
CO	0 - 5 % vol.	0,01 %	0,001 %
CO <sub>2</sub>	0 - 20 % vol.	0,1 %	0,1 %
O <sub>2</sub>	0 - 21,7 % vol.	0,1 %	0,01 %
LAMBDA	0,8 - 1,2	0,01	0,001
NOX	0 - 5.000 p.p.m. vol.	1 p.p.m.	1 p.p.m.

MEASUREMENT	RANGE	Resolution
Regime	60 - 9.990 r.p.m.	10 r.p.m.
Oil temperature	-5 °C / 150 °C	1 °C

## Dimensions

Gas equipment dimensions	400 x 400 x 190 mm.
Gas equipment dimensions packed	570 x 470 x 190 mm.
Weight packed equipment	10 kg.

Adapted to measurements of  
GLP, GNC and GNL

MEASUREMENT  
CO, CO<sub>2</sub>, HC, O<sub>2</sub> NOx








Possibility of integration  
EOBD Equipment



\* Trolley furniture not included in Standard Equipment

Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

## Optional Equipment

	GEN-ENAC ENAC certified	
	AG-SOF PC integration software, database and cabling Connections	
	AG-2S Gas inlet hose with double probe	
	RY3 R.P.M. and Accessories kit for r.p.m. measurement	
	868800 R.P.M. y Accessory kit for RPM measurement	

## Optional cabinet

	TROLLEY Mobile stand for computer and printer		CABINET GASES Cabinet only Dimensions: 700 x 500 x 1.550 mm.
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Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

The RY-3200 AH Smokemeter is a modern equipment, prepared and ready to meet the requirements of the UNE 82503, DIN 57411 and SAE J1677 USA/ Canada standards.

- It fully complies with the Opacity control procedure for technical inspection centers and the Opacity determination procedure is applicable to repair shops.
- Opacity analysis function with visualization of the opacity curve.
- Automatic zero adjustment before use.

Temperature and  
r.p.m. meter

Certification and commissioning  
Module F

Auto Zero  
Automatic

## Standard Equipment

- Smokemeter analysis equipment
- Commissioning certificate for SMOKEMETER modulo F
- Petrol and diesel rev counter, oil temperature
- Centralization output

## Technical Data

- Power Supply: 220 V 50-60 Hz
- Storage temperature: de 0 °C a 40 °C
- Centralization output
- Dimensions: 400 x 180 x 289 mm (l x a x p)
- Weight: 7 Kg

## Measurement range and Resolution

MEASUREMENT	RANGE	Resolution
N	0-100 %	0,1 %
K	0,00 a 9,99 m <sup>-1</sup>	0,01 m <sup>-1</sup>








**\* Trolley furniture not included in Standard Equipment**

## Dimensions

Dimensions Smokemeter	500 x 250 x 450 mm.
Dimensions Smokemeter packed	480 x 390 x 300 mm.
Weight packed equipment	8,5 kg.

## Optional Equipment

	GEN-ENAC	ENAC certified		868800	R.P.M. and Accessories kit for r.p.m. measurement
	GEN-CPS	Commissioning certificate for SMOKE-METER			
	GEN-LCS	Calibration lenses			
	AH-SOF	PC integration software, database and cabling Connections		GEN-SAH	Extendable SMOKEMETER system for vehicles with vertical exhaust behind the cab.
	RY3	R.P.M. and Accessories kit for r.p.m. measurement			Approved probe extension 745 mm. Approved probe extension 2.345 mm. Approved probe extension 3.840 mm.

## Optional cabinet

	TROLLEY Mobile stand for computer and printer		CABINET GASES Cabinet only Dimensions: 700 x 500 x 1.550 mm.
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The gas analyzer + SMOKEMETER is modern equipment, prepared and ready to meet the requirements of UNE 82503 DIN 57411, SAE J1677 USA / Canada (SMOKEMETER) and OIML R99 Class 1 and 0, ISO 3930, UNE 82501, bar 90, bar 97, US EPA ASM (gas analyzer).

Adapted to current standards for vehicles with dual exhaust systems, and possibility of two measurements

Adapted to measurements of GLP, GNC and GNL

MEASUREMENT  
CO, CO<sub>2</sub>, HC, O<sub>2</sub>, NOx

Certification and commissioning  
Module F

## Standard Equipment

- Gas analysis equipment
- Graphic LCD display
- 5-key keyboard
- Thermal Printer
- Centralization output
- Keyboard input
- Petrol and diesel rev counter, oil temperature
- Smokemeter analysis equipment
- Commissioning certificate for Smokemeter modulo F
- Petrol and diesel rev counter, oil temperature
- Centralization output

## Technical Data Smokemeter

- Power Supply: 220 V 50-60 Hz
- Storage temperature: de 0 °C a 40 °C
- Centralization output
- Dimensions: 400 x 180 x 289 mm (l x a x p)
- Weight: 7 Kg

## Technical Data Gas Analyzer

Gases	CO, HC, CO <sub>2</sub> , O <sub>2</sub> y (NOx optional)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C a 70 °C
Operating temperature	-5 °C a 45 °C
Operating pressure	750 - 1.100 mbar (1000 mbar nominal)
Automatic removal of water and particles	>5 µ.
Power Supply	220 V a 50 Hz
Oil temperature gauge	0 - 150 °C ; resolution 1°C
R.P.M. Meter	0 - 9990 ; 10 r.p.m.
Lambda	0,001 ó 0,01 ; configurable
Complies with UNE 82.501, OIML R class 1 and 0, ISO 3930, BAR 90, BAR 97, US. EPA ASM	
It has a database and rejection assessment	



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## Measurement range and Resolution


MEASUREMENT	RANGE	Resolution
N	0-100 %	0,1 %
K	0,00 a 9,99 m -1	0,01 m -1




MEASUREMENT	RANGE	NORMAL	HIGH
HC	0 - 20.000 p.p.m. vol. Kex	1 p.p.m.	1 p.p.m.
CO	0 - 15 % vol.	0,01 %	0,001 %
CO <sub>2</sub>	0 - 20 % vol.	0,1 %	0,1 %
O <sub>2</sub>	0 - 21,7 % vol.	0,1 %	0,01 %
LAMBDA	0,8 - 1,2	0,01	0,001
NOX	0 - 5.000 p.p.m. vol.	1 p.p.m.	1 p.p.m.

## Dimensions

Dimensions Smokemeter	500 x 250 x 450 mm.
Dimensions Smokemeter packed	480 x 390 x 300 mm.
Weight packed equipment	8,5 kg.
Gas equipment dimensions	400 x 400 x 190 mm.
Gas equipment dimensions packed	570 x 470 x 190 mm.
Weight packed equipment	10 kg.

## Optional Equipment

	ENAC certified
	Calibration lenses
	PC integration software, database and cabling Connections
	RY3 R.P.M. and Accessories kit for r.p.m. measurement
	868800 R.P.M. and Accessories kit for r.p.m. measurement
	AGH-NOX Sensor NOx
	AGH-2S Gas inlet hose with double probe

	AGH-ATE Motorcycle Exhaust Adapter Kit
	GEN-EOB EOBD kit, integration with gas equipment and software
	GEN-SAH Extendable Smokemeter system for vehicles with vertical exhaust behind the cab.
	Approved probe extension 745 mm.
	Approved probe extension 2.345 mm.
	Approved probe extension 3.840 mm.

## Optional cabinet

	TROLLEY Mobile stand for computer and printer		CABINET GASES Cabinet only Dimensions: 700 x 500 x 1.550 mm.
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The gas analyzer + opacimeter EIS-5000 is a modern equipment, prepared and ready to meet the requirements of UNE 82503 DIN 57411, SAE J1677 USA/Canada (opacimeter) and OIML R99 Class 1 and 0, ISO 3930, UNE 82501, bar 90, bar 97, U.S. EPA ASM (gas analyzer). Adapted to the current regulations for vehicles with dual exhaust system, and the exhaust system, and possibility of performing two measurements.

## Main features

- High quality steel frame. Designed and manufactured to the highest level of detail.
- Robust industrial frame, using epoxy paint.
- Bluetooth wireless technology
- Wireless barcode scanner included.
- High pressure purge. Keeps internal components clean and allows for accurate results at every point of the test.
- Windows operating system. Allows continuous updating of components.
- 22" color LCD monitor. High resolution for easy monitoring of the test.
- Graphical and numerical display of results
- Intuitive control software guided by graphic icons.
- Analyzer for 4 or 5 types of gases. Certified emission analyzer according to the California Emissions Inspection Program BAR97
- Zero air generator. We are the only manufacturer that integrates this technology into the device.
- The high quality components of the new gas analyzer EIS-5000 gas analyzer allow precise measurement during

## Advantages

- Uses high quality components that guarantee high performance testing and long life for high performance testing and long life equipment for High Speed Connections.
- High Speed Connections
- The Integrated Zero Air Generator offers a solution to the need for the most cost-effective and environmentally solution to the need for the most cost-effective and environmentally friendly zero air gas.
- Environmentally friendly
- Patented Thermal Sample Cooler lowers the temperature of a sample BEFORE it enters the of a sample BEFORE it enters the system, in order to provide a long to provide long equipment life and faster, more accurate diagnostics.
- The OBDII Manual Mode allows you to verify that a vehicle is ready for inspection and provides the information is ready for inspection and provides the information needed to diagnose vehicle problems.
- High pressure purge. Keeps internal components clean and components clean and allows for accurate results at every point of the of the test.
- Windows operating system. Allows for continuous component of the components.

Adapted to  
measurements of  
GLP, GNC and GNL

MEASUREMENT  
CO, CO<sub>2</sub>, HC, O<sub>2</sub>, NO<sub>x</sub>

THE ONLY DEVICE WITH  
ZERO AIR GENERATOR



## OBD II System integrated

Where available on a vehicle, the system will utilize Worldwide's BAR Certified OBDII Data Acquisition Device (DAD) tester to extract relevant vehicle information, including but not limited to the following:

- Vehicle VIN & Odometer Reading (where applicable, utilize this data as part of the emissions testing process);
- Software clearly displays the Engine RPM and Engine Temperature in Real-Time;
- The system compares the retrieved data with the data already on the ITL and populates the appropriate fields within the test lane software as necessary.

Integrated with the EIS5000 via Wi-Fi or USB, the DAD performs all necessary OBD functions. The screen will clearly display on the screen the target limit values for the specific test including: Engine Revolutions Per Minutes (RPM) range, minimum engine temperature, maximum CO at idle and fast idle, maximum HC at fast idle, lambda range at fast idle.

The EIS5000 will provide the examiner with a quick and clear means of identifying the engine type, and apply the correct emission test standard to the vehicle wherever vehicle specific data and emissions limits are required to conduct the emissions test.

The EIS5000 will clearly display on the screen live test data including test progress, engine RPM, engine temperature, CO, HC and lambda values. Also clearly indicated on the screen is whether each measurement is within the appropriate limit values and automatically pass or fail the test. All available data recorded from the emissions test on the EIS5000 will be automatically saved to the ITL system and be available to review at any time at any stage of the test.

All available emission test data recorded from the EIS-5000 will be automatically saved in the ITL system and will be available in the ITL system. EIS-5000 will be automatically stored in the ITL system and will be available for review at any available for review at any time and at any stage of the test.

The DAD only requires the supplied J1939 Adapter for connection to all OBD compliant vehicles.

The EIS5000 will clearly display on the screen the relevant instructions for the inspector, including the duration, how and when to increase/decrease and maintain engine speed. It will also clearly display the live test data test data, including test progress, engine RPM, engine temperature, opacity measurement for each acceleration.

It will also display all accelerations with their measurements and the average of the last three accelerations will also be displayed.

To avoid unnecessary testing, the smoke meter test equipment will pass vehicles that have values significantly below the target limit values after less than three free acceleration cycles or after purge cycles.

The equipment shall record evidence that the test has been performed on vehicles that emitting minimum levels. The system will clearly indicate on the display whether each measurement is within the appropriate limit values and will automatically pass or fail the test, and will automatically pass or fail the test.

All data available from the smoke meter test will be stored in the smoke meter All available smoke meter test data will be stored in the ITL system and will be available for review at any stage of the test.



**OBD II (D.A.D)**



**J1939 Adapter**