Ryme

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, CO2 HC, O2, NOx) 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 y GNL

Measurement
CO, CO$_2$, HC, O$_2$ NOx

Certification and commissioning
Module F

Standard Equipment

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

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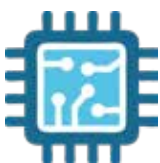
Software

- ◼ Adapted to current standards for vehicles with dual exhaust systems, and possibility of two measurements
- ◼ Auto zero automatic
- ◼ **Sending and processin**g data and graphics in r**eal time**
- ◼ **Possibility of sending encrypted data to the server u**sing the AES **encryption method (Advanc**ed Encryption Standard)
- ◼ **100% compatible with ma**nagement 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 g**uided 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

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

RAM memory
New memory 16 times faster

Flash Memory
New memory 4 times faster

Technical Data Gas Analyzer

Gases	CO, HC, CO_2, O_2 y (NOx optional)
Lambda factor calculation and corrected CO	
Storage temperature	-50 ºC a 70 ºC
Operating temperature	-5 ºC a 45 ºC
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 R.P.M. Meter Lambda	0 - 150 ºC ; resolution 1ºC 0 - 9990 ; 10 r.p.m. 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_2	0-20 % vol.	0,1 % vol.
O_2	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 40ºC Humidity: 0-95 % Pollution: < 2%
Storage temperature	-32 ºC a 50 ºC
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^{-1} / Resolution 0,01 m^{-1}
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

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.

Ryme

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.PM. 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...