

ANALYSERS AND OPACIMETERS



TECNOMOTOR®

THE COMPLETE RANGE FOR THE ANALYSIS OF EMISSIONS



OPA 820
OPA 840
OPA 840 PLUS

GAS 810
GAS 810 PFC
GAS 830
GAS 830 PLUS
GAS 830 PFC

GAS ANALYSERS

For the **Analysis of Exhaust Gases**.

The exhaust gas analyser modules of line 800 are designed to operate in harsh environments and ensure **high reliability and measuring accuracy**. These criteria have allowed to obtain the main international type-approvals, such as OIML Class 0 and MID 2004/22/EC.

The wide range of available options and accessories can meet any needs of overhaul lines and workshops.

In fact, autonomous modules (equipped with LCD, keyboard and printer) are available for testing operations, as well as measurement modules to be interfaced with mobile displays or PCs via cable or bluetooth (with transmission range in free space up to 300m).

It is also possible to integrate rechargeable batteries into the tool in order to power it.

OIML Classe 0
ISO 3930/OIML Classe 0

MID approval
MID 2004/22/CE

OPACIMETERS

For **Diesel Engine Opacity Measurement**.

The opacimeter chamber developed by Tecnomotor ensures reliability and measuring accuracy in harsh environments (such as heavy vehicles and agricultural vehicles) with compact dimensions and low energy consumption.

Moreover, **the integration of sophisticated electronics and special software algorithms allows to eliminate the need to calibrate internal** optical devices, so that it is only necessary to check the tools once a year.

As for the gas analysers, **a wide range of configurations is available to meet any need** like:

- Fume extraction (for example by means of suitable probes for the high exhausts of buses).
- Wireless display units to perform tests directly from the driving seat without having to get off the vehicle to accelerate.
- Battery power supply.

ISO 11614

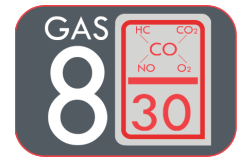
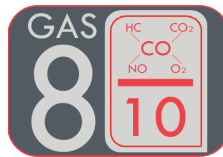


Made in Italy

Azienda con sistema di gestione per la qualità certificato da BV UNI EN ISO 9001:2008



GAS ANALYSERS



GAS 810 - GAS 810 PFC



STANDALONE GAS ANALYSER that can perform standard tests autonomously thanks to:

- 16-key multi-function keyboard
- 4x20 LCD, 9 mm digit height, backlit with white LEDs
- 24-column thermal printer

The model 810 can be also connected to the PC via cable or bluetooth.

GAS 830 - GAS 830 PFC



GAS EMISSION ANALYSER UNIT TO BE INTEGRATED WITH EXTERNAL display unit (PC, via cable or bluetooth, wireless Vis) specific for overhaul line/DIR/NETWORK module.

GAS 830 PLUS



GAS ANALYSIS MEASURING UNIT complete with:

- exhaust gas analyser with 24-column printer, built-in battery and bluetooth module
- wireless display unit, battery-powered
- trolley for easy movement

GAS 810 PFC / GAS 830 PFC: Same features as GAS810 and GAS830 models, but including automatic discharge of unburned hydrocarbons through filtering system and sampling probe.

* NOT SUPPLIED

TECHNICAL FEATURES

- **Dimensions:** 23 x 34 x 22.5 cm
- **Power supply:** 220/110 V - 50/60 Hz 30 W
- **Operating temperature:** 5° ÷ 40 ° C
- **Storage temperature:** -20 ÷ 60 ° C
- **Pressure:** 850 hPa ÷ 1025 hPa
- **Humidity:** 0% RH ÷ 95 % RH
- **Maximum heating time:** 3 min.
- **Reset:** Electronic and automatic through solenoid valve
- **Oil Temperature:** 0 ÷ 150°C Res.1°C
- **CO measure:** 0 ÷ 10% Vol Res.0.01% Vol
- **CO2 measure:** 0 ÷ 20% Vol Res.0.1% Vol
- **HC measure:** 0 ÷ 20000ppm Vol(optional) Res.1 ppm Vol
- **O2 measure:** 0 ÷ 21%Vol Res.0.01% Vol
- **LAMBDA factor:** 0 ÷ 2 Res.0.001
- **NOx measure:** 0 ÷ 5000ppm Vol(optional) Res.1 ppm Vol
- **Weight** (with internal battery): lower than 15kg
- **Metrological approvals:** OIML Class 0, MID 2004/22/EC

“STAND ALONE WIRELESS” CONFIGURATION



Consisting of:

- Exhaust gas analyser, model 830 Plus with 24-column printer, trolley, internal battery and bluetooth.
- Opacimeter, model 840Plus with 24-column printer, trolley, internal battery and bluetooth.
- Mobile display with lithium battery and bluetooth.

To be integrated, depending on the application, with oil temperature probe and rev counter, to be chosen among accessories.

OPACIMETERS



OPA 820



STANDALONE OPACIMETER that can perform standard tests autonomously thanks to:

- 16-key multi-function keyboard
- 4x20 LCD, 9 mm digit height, backlit with white LEDs
- 24-column thermal printer

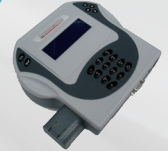
The model 820 can be also connected to the PC via cable or bluetooth.

OPA 840



GAS EMISSION ANALYSER UNIT TO BE INTEGRATED WITH EXTERNAL DISPLAY UNIT(PC, via cable or bluetooth, wireless Vis) specific for overhaul line/DIR/NETWORK module.

OPA 840 PLUS



OPACITY MEASURING UNIT complete with:

- opacimeter with 24-column printer, built-in battery and bluetooth module
- wireless display unit, battery-powered
- trolley for easy movement.

* NOT SUPPLIED

TECHNICAL FEATURES

- **Dimensions:** 23 x 34 x 22.5 cm
- **Power supply:** 220/110 V - 50/60 Hz 30 W
- **Operating temperature:** 5° ÷ 40 ° C
- **Storage temperature:** -20 ÷ 60 ° C
- **Pressure:** 850 hPa ÷ 1025 hPa
- **Humidity:** 0% RH ÷ 95 % RH
- **Maximum heating time:** 5 min.
- **Reset:** Electronic and automatic through solenoid valve
- **Oil Temperature:** 0 ÷ 150°C Res.1°C
- **Absorption coefficient K (m-1):** 0 ÷ 9.99 m-1 Res 0.01 m-1
- **Absorption percentage N (%):** 0 ÷ 99.9 % Res 0.1%
- **Acceleration time:** 0 ÷ 5 s. Res 0.1s
- **Fume temperature:** 0 ÷ 150 °C. Res1°C
- **Effective chamber length:** 296 mm
- **Chamber temperature:** 75°C
- **Light source:** Green LED diode
- **Weight** (with internal battery): lower than 15kg
- **Metrological compliance:** ISO 11614

“BRAVO” CONFIGURATION

Consisting of:

- Exhaust gas analyser, model 830 with trolley, internal battery and bluetooth.
- Opacimeter, model 810 with trolley, internal battery and bluetooth.
- Software to be installed on PC (*not supplied).

To be integrated, depending on the application, with oil temperature probe and rev counter, to be chosen among accessories.

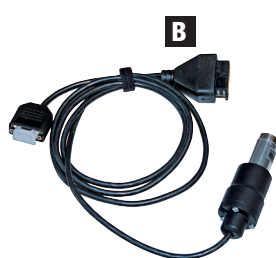


ACCESSORIES

REV COUNTER



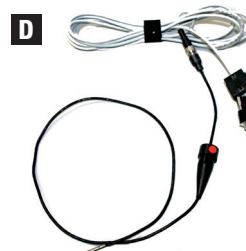
A



B



C



D

A > 8-64503066

Rev detector for detection through self-diagnosis socket (optional battery)

B > 8-63500007

Vibration sensor

C > 8-64502016

Rev detection cable

D > 8-63500002

Oil temperature probe

TROLLEY AND OTHER ACCESSORIES



E



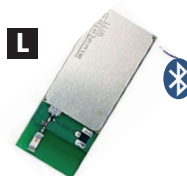
G



H



I



L



M

E > 8-64200134

2-Wheel trolley (for GAS/OPA)

G > 8-63500011

TRUCK probe (for OPA)

H > 8-64200009

Gas extraction kit for motorcycles (for GAS)

I > 8-64500085

WSC (Water System Cut) kit** (for GAS)

L > 8-64500003

Kit for BlueTooth wireless communication (for GAS)

L > 8-64500009

Kit for BlueTooth wireless communication (for OPA)

M > 8-64500001

Battery to be inserted inside the gas analysers and opacimeters with battery life longer than 4h (for GAS/OPA)

** Anti-flooding system with automatic block of measured gases when the condensate becomes excessive.

