



BTG_1500
PORTABLE LANDFILL
GAS ANALYSER

BROCHURE



Principal characteristics

ABE_1500 analyser for methane (CH₄), Carbon oxide (CO₂), Carbon monoxide (CO), and oxygen in biogas.
 Measure camps 0-100% in volume for CH₄, 0-100% in volume for CO₂, 0-20000 ppm for CO, 0-25% in volume for O₂.

Oxygen sensor

Utilized sensor (max_250) of electrochemical type; utilize an alkaline material insensible to carbon anhydride (gas who poison traditional electrochemical sensory, reducing theirs during). Operative life of sensory change favourably of percentage of oxygen measured (whit air to 20,93% of oxygen, standard during of sensory is of 2 years), whit percentage of oxygen less of 5%, it augments until 4/5 years (in case of clean and not damp gas).

Methane Sensor, Carbon Anhydride, Carbon Monoxide

The sensory utilize a source of impulsive emission of infrared to low temperature. Methane, Carbon Anhydride and Carbon Monoxide, presents an high coefficient of absorbtion of infrared light, the sensory read this attenuation when inside of measures room, are the gas in question and it's possible draw the concentration of respective gas.

Options

Code	Describing
ABE_1500	Analyser for oxygen, methane, carbon anhydride, carbon monoxide
ABE_550	Gas speed velocity measure for flow reading 0 - 42 m/sec
ABE_553	Software for configuration and dates reading on PC
ABE_570	Analyzer case
ABE_580	Sensor H ₂ S 0-500 ppm
ABE_581	Sensor NH ₃ 0-1000 ppm
ABE_582	Sensor CO 0-1000 ppm

ABE_550 Anemometer to read the gas flow inside pipe (diameter 16 mm) into the range 0.3 to 42 m/sec, from witch you can compute the gas flow into the pipe.

ABE_553 Software for Microsoft Windows 2000, XP for controller configuration and transfer dates compatibles Microsoft Excel.

ABE_570 Case for ABE_1500.

Supervision software (ABE_553)

Possibility of direct connector between analyser and PC for configuration, transfer or memorized data. The software is realized for Windows 2000 or XP, with “.net” technology. For more information of pack, make referred to software manual.



Fig. 1 Software Configuration

The software permits reading and configuration of function parameters of instrument and the visualization of reading.

Analyser has one serial com 232 standard port galvanic insulated. The isolation permits the connection with external instruments that can be in a different potential. On this port you can connected the supervision system, installable on a personal computer (ABE_553).

Case (ABE_570)

Plastic case for transport and protect the gas analyzer ABE_1500, it has transparent membrane for visualize the screen.

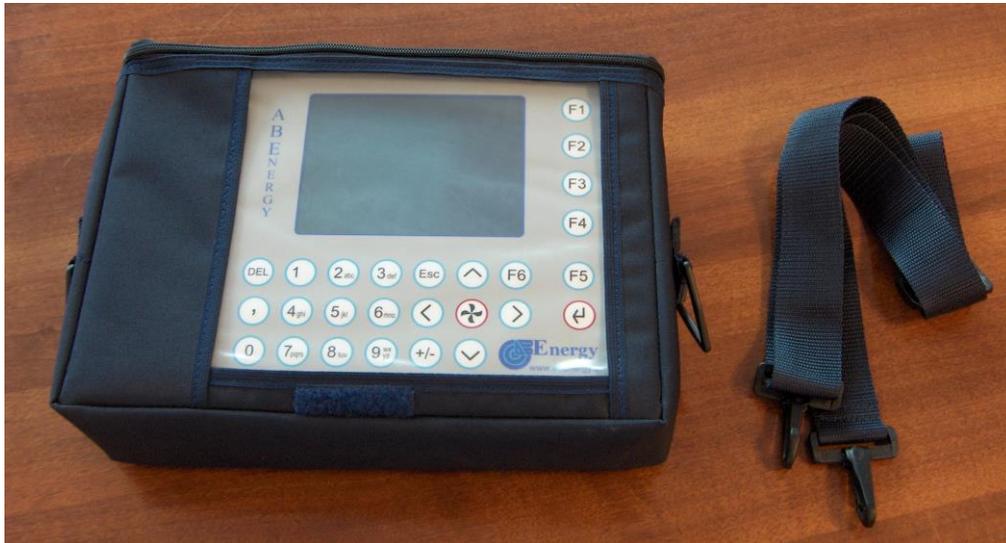


Fig. 2 Case

Sensor for H₂S 0-500 ppm (ABE_580)

Additional sensor for H₂S.

Sensor for NH₃ 0-1000 ppm (ABE_581)

Additional sensor for NH₃.

- **SCREEN**

LCD display has big dimension ¼ VGA (320*240 pixel) with inverse visual (lighter written), of blue colour. Best luminosity level. Possibility to change contrast.

It permits to see at the same time all measures made by analyser in numerical form.

In the main page you can change the display contrast with the up and down arrows.

- **KEYBOARD**

Web keyboard, numerical, with more special functions (taste in relief, pressure squash a "boll" of steel, witch produce taste sensation). By that it's possible local direction of all functionalities of instrument.

High protection grade that permit the use of analyser outside and presence of water.

Numeric visualization

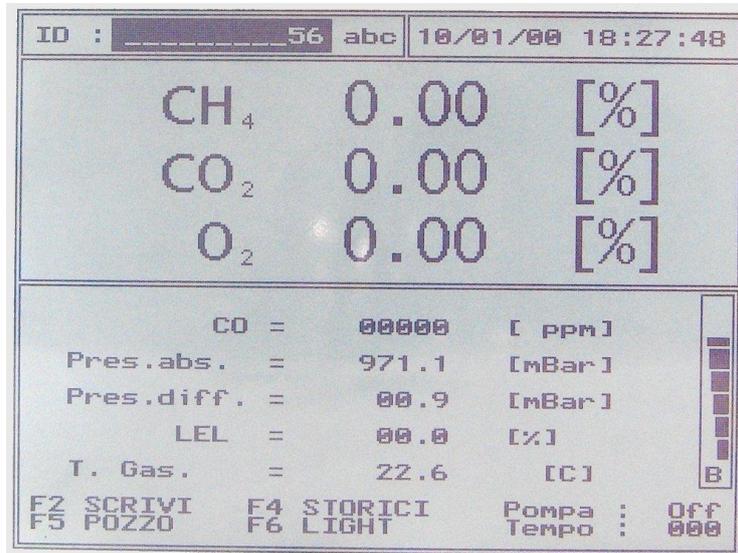


Fig. 3 Main window

It's the main window on which you can read all the sensor reading by system. More important values (Oxygen, Carbon Anhydride, and Methane) are showed with large characters for long distance easy reading.

- On first line on the left it appear the ID of the well.
- On first line on the right are showed date and time, the internal watch work also when the analyser is off.
- The percentage value of concentration of methane, oxygen, dioxide carbon, read by analyser.
- The value of monoxide of carbon, ammonia, hydrogen sulfide read by instrument.
- The percentage of LEL (low explosiviti level)
- Atmospheric pressure, differential pressure and temperature of gas.
- The bar graf with the charge battery indicatin.
- The pump state (if the pump is working the write is on, if the pump is not working the write is off).
- The working time of the pump in seconds.
- Flow rate

Battery recharger



Fig. 5 Battery rechargers

The analyser is powered by a lithium battery, this kind of battery is very powerful, light and not present memory effect.

With battery fully charge the analyser can work for till 10 hours before need a new recharge.

To recharged the battery connect the recharger to the case thru the plug and push the red button on the recharger the yellow led will turn on and stay so till the battery is fully recharged.

When the battery are completely down the recharged time is at least 2 hours.

The analyser control at any time the state of the battery and turn itself off the the battery are too low, before do that advise the operator with beep and a writing warning.

ADVISE:

Never leave the analyser with battery not full charge, as soon as you finish to use recharge it. If the instrument is not use recharge the battery every three months.

Memory

The analyzer can memorize till 800 well ID names, and 2349 log record acquisition.

Technical note

Operative temperature	-5°C / 50°C
Weight	3 Kg
Dimension	206*197*70 mm

Measures range

Model	Operative range	Resolution
O2	0 — 25% Volum.	+/- 1%
Ch4	0 — 100% Volum	+/- 1.5%
CO2	0 — 100% Volum	+/- 1.5%
CO	0 — 20000 ppm	+/- 1.5%
NH3	0 – 1000 ppm	+/- 3%
H2S	0 – 500 ppm	+/- 3%
Absolute pressure	100 — 1200 mBar	+/- 2%
Relative pressure	-200 — 0 mBar	+/- 2%
Temperature Sensor	-10 — 100°C	0,5 °C
Flow sensor	0,6 — 40 m/s	