



## COMBUSTION ANALYZERS

  
MADE IN ITALY



[www.seitron.it](http://www.seitron.it)

## Range for Combustion Analysis

The periodic boiler analysis, also known as boiler combustion analysis/smoke test, is the key to ensure the safety of the boiler, by improving its efficiency and reducing the emissions. Seitron combustion analyzers meet the needs of any operator who has to perform combustion analysis in a simple and immediate way, while being always up to date with current standards such as UNI 10389-1. Seitron combustion analyzers can perform several measurements, such as:

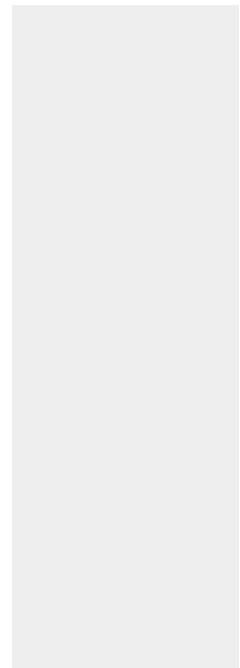
- Tightness test on gas systems
- Differential temperature measurement
- Gas pressure measurement
- Draft measurement
- Calculation of boiler heat losses and efficiency
- Detection of CO values in closed rooms

Seitron portable instruments have been designed for HVAC professionals, supporting them with installation and maintenance of any kind of boiler and burner. Seitron analyzers are the ideal instruments to monitor the combustion processing, helping the optimization of energy efficiency. The products are completely made in Italy, starting from the project to the production, to guarantee the best quality, design and performances.





## Applications



**Combustion analysis of residential Boilers**



**Combustion analysis of Pellet Boilers**



red dot winner 2022

**4 YEARS WARRANTY ON  
INSTRUMENT AND GAS  
SENSORS**



**Seitron Smart Analysis**



**Seitron Smart Analysis  
Windows 10**



## **Novo**

**UP TO 4 SENSORS**

**PORTABLE COMBUSTION ANALYZER**

**7" Touch Display**

**15 Preprogrammed Fuels  
(Including Wood, Pellets, Biogas And Coal)**

**CO Protection Dilution Pump**

**Rechargeable Li-Ion Batteries**

**Integrated and easy to clean water trap, with LED  
backlight**

**4 Pa Ventilation Measurement**

**Simultaneous measurement of boiler gas pressure**

**Draught Measurement**

**Tightness Test**

**Biomass Combustion Analysis**

### **EVERY KIT INCLUDES:**

- Instrument
- Flue gas probe with 300 mm interchangeable tip
- Integrated water trap
- Combustion air temperature Probe
- Tube for gas valve pressure measurement
- Power Adapter and International Plug
- Hard plastic kit case
- Quick Guide
- Calibration Certificate

**MAIN FEATURES**

- Precalibrated Gas Sensors
- 3 analysis in sequence with automatic calculation of the average value and printing of the result
- Automatic autozero (with flue gas sampling probe inserted in the chimney)
- Autozero pressure sensor, for a more stable and reliable draft measurement
- Self-diagnosis with verification of the functions and status of the sensors
- Language selectable by the user
- Automatic calculation of pipe volume
- Integrated magnets
- 100 MB for complete analysis memory
- Dimensions:  
Analyzer 270Hx93Lx68D mm, weight 0,9 Kg  
Kit 125Hx465Lx335D mm, weight 5 Kg

**MEASURED VALUES**

- Flue gas temperature and differential temperature
- Outdoor air temperature and room temperature
- Draft and differential pressure
- CO concentration in ambient air

**CALCULATED VALUES**

- Boiler efficiency, including condensation
- Stack losses and excess air
- CO
- Flow velocity with Pitot tube
- Burning power

FEATURES	Novo 2	Novo 3	Novo 4S	Novo 4N
O2 Sensor	✓	✓	✓	✓
CO/H2 Sensor	✓	✓	✓	✓
NO Sensor	-	✓	✓	✓
NOx Calculated	-	✓	✓	✓
NO2 Sensor	-	-	-	✓
NOx Measured (NO+NO2)	-	-	-	✓
SO2 Sensor	-	-	✓	-
Kit with integrated Printer	Novo 2-P	Novo 3-P	Novo 4S-P	Novo 4N-P
Kit with Bluetooth Printer (Thermal Paper Roll included)	Novo 2-ST	Novo 3-ST	Novo 4S-ST	Novo 4N-ST

**Novo X**

Modular Gas Analyzer Kit up to 4 sensors (O<sub>2</sub> + up to 3 sensors of your choice)



## NEW UPDATED FEATURES



### 7" touch screen (85x155mm)

The new device has been redesigned to give the user an improved and easy-to-use experience.

The analyzer includes a large 7" touchscreen, granting maximum visibility of all information along with quick and smooth browsing experience.

### Integrated water trap

The water trap design has been completely renewed to guarantee maximum performance and easy maintenance. A large inspection window with backlit LED allows the user to quickly and very easily check the water level and filter at any time.



### New Updated Analyzer Housing

Reliability and ease of use have represented the development guidelines for Novo, also inspiring the new cover. With a rubber finish, which confers a steady and simple grip, as well as a sturdy and modern design, the new housing offers a pleasant and functional user experience.



### Simple ONE Probe Connection

One source of major improvement of our analyzer is the innovative flue gas sampling probe connection. Instead of three (3) separated connections for temperature, draft and flue gases, it has been redesigned to just one (1) simple connection. The new connection allows the user to put the probe in without looking thanks to its easy plug-n-play design.



## Intuitive interface

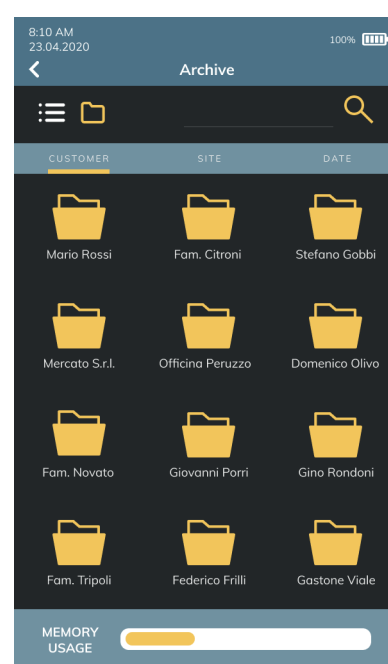
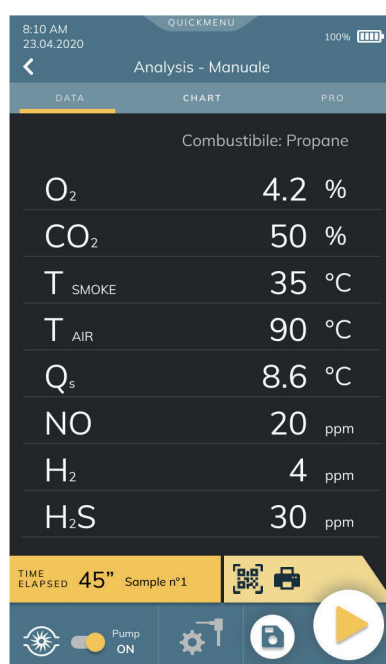
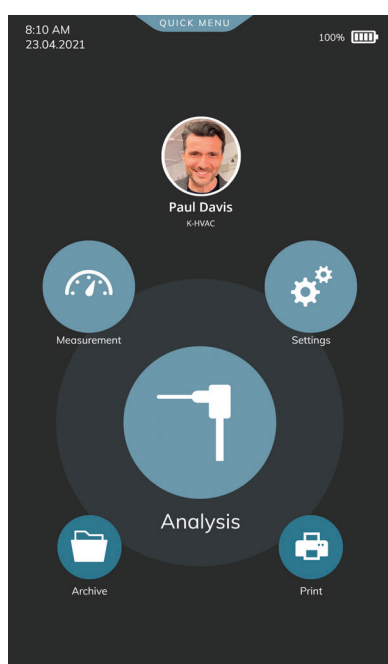
In addition to the elegant and ergonomic design, Novo features a simple, intuitive and efficient touchscreen interface.

The new and intuitive interface allows the user to quickly create customizable combustion reports, set and/or change the parameters of the device, carry out multiple optional measurements, and much more.

There is also the possibility to customize the home screen, with user's profile picture and information.

The combustion report can be shared in different formats or it can be printed by using the built-in integrated printer or the optional wireless Bluetooth printer.

The new generation of LONG-LIFE gas sensors, installed in Novo, enhances reliability and accuracy of the measurements, together with a longer sensor life compared to the competitors.

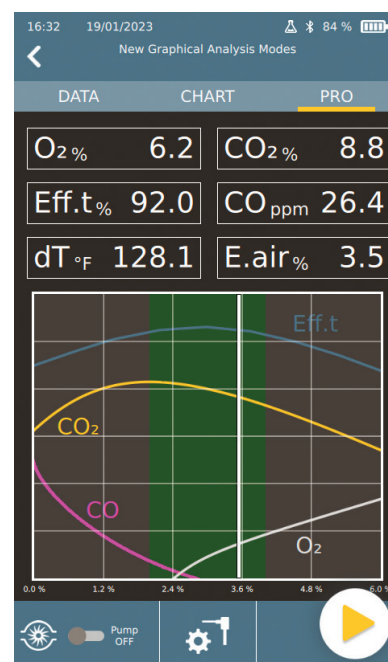
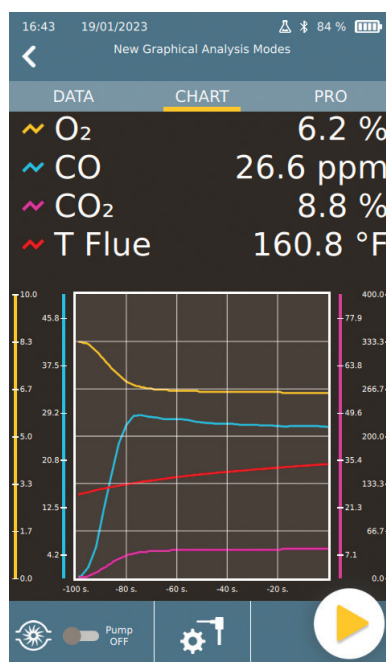


## Graphs

View of the values charts detected in real time.

Possibility to change the mode Text data, Graphics, Professional.

In Pro mode it is possible to adjust the boiler by graphically displaying the area in which the values are optimal.


















## Novo - GAS SENSORS

GAS	CODE	RANGE	RESOLUTION	ACCURACY
O2 Long Life *	Novo O2 LL	0...25% v/v	0.1% vol	±0.2% vol
CO / H2	Novo CO/H2	0...500.0 ppm	0.1 ppm	±2 ppm ±5% v.m. 0 .. 40 ppm 40.1 .. 500.0 ppm
		501...8000 ppm	1 ppm	±10% v.m. 501 .. 8000 ppm
CO Mid	Novo CO Mid	0...20000 ppm	1 ppm	±10 ppm ±5% v.m. ±10% v.m. 0 .. 200 ppm 201 .. 4000 ppm 4001 .. 20000 ppm
CO High	Novo CO High	0...100000 ppm	1 ppm	±100 ppm ±10% v.m. 0 .. 1000 ppm 1001 .. 100000 ppm
NO	Novo NO	0...500.0 ppm	0.1 ppm	±2 ppm ±5% v.m. 0 .. 40 ppm 40.1 .. 500.1 ppm
		501...5000 ppm	1 ppm	±10% v.m. 501 .. 5000 ppm
NO2	Novo NO2	0...100.0 ppm	0.1 ppm	±2 ppm ±5% v.m. 0 .. 40 ppm 40.1 .. 100.1 ppm
		101...1000 ppm	1 ppm	±10% v.m. 101 .. 1000 ppm
SO2	Novo SO2	0...500.0 ppm	0.1 ppm	±2 ppm ±5% v.m. 0 .. 40 ppm 40.1 .. 500.1 ppm
		501...5000 ppm	1 ppm	±10% v.m. 501 .. 5000 ppm
H2	Novo H2	0...2000 ppm	1 ppm	± 10 ppm ± 10% v.m. 0 ppm - 100 ppm 101 ppm - 2000 ppm
H2 High	Novo H2 High	0...40000 ppm	10 ppm	± 100 ppm ± 10% v.m. 0 ppm - 1000 ppm 1001 ppm - 40000 ppm
H2S	Novo H2S	0...5000 ppm	1 ppm	± 10 ppm ± 10% v.m. 0 ppm - 100 ppm 101 ppm - 5000 ppm
H2S Low	Novo H2S Low	0...500.0 ppm	0.1 ppm	±5 ppm ±5% v.m. 0 .. 100.0 ppm 101 .. 500.0 ppm
NH3 Low	Novo NH3 Low	0...500.0 ppm	0.1 ppm	±10 ppm ±10% v.m. 0 .. 100.0 ppm 100.1 .. 500.0 ppm
CxHy	Novo CxHy	0..5% vol CH4	0.01% vol	±0.25% abs
CH4 NDIR	Novo CH4 NDIR	0..100% vol	0.01% vol	±0.3 vol ±10% v.m. 0 .. 10% vol 10.01% .. 100.00% vol
CO2 NDIR	Novo CO2 NDIR	0..50% vol	0.01% vol	±1 vol ±2% fs 0 .. 10.00% vol 10.01% .. 50.00% vol

\*: Sensor replaceable by the user

## Accessories and Spare Parts

CODE	PHOTO	DESCRIPTION
AJPB01		Li-Ion Rechargeable Battery; 3,7Vdc - 6 A/h
AJKA02		Power supply with US plug, USB type C and 1.8 m cable
AJCR01		Hard plastic Case
AJTA01		Water trap with flue gas filter
AACFA01		Dust filters for AACTA03 (pack of 5 pieces) dimensions 12x32 mm
AARC10		Long Life thermal paper roll 57x35
AAST04	 batterie incluse	Thermal printer with Bluetooth connection
AAKT05		Kit for tightness test with 4 ways manifold, manual pump, 100 ml syringe, hoses, 1 silicone conical fitting
AATL01		S-probe with clamp for 8 mm tips, for use on exhaust systems
AAPM02		Manual pump for measuring carbon black + filters + BACHARACH table
Accessories for industrial measurements, high temperatures and particularly dirty smokes		
 +  +  <b>AJSJxx + AJPTxx</b> Smoke analysis probe <b>AASP01</b> Heat shield <b>AAFS02</b> Stainless steel filter with adapter		

CODE	PHOTO	DESCRIPTION
AJTB01		Gas pressure tube; length 1 m
AJKP01		Differential pressure measurement Kit
AJSJ01		Flue gas sampling probe handle with 1.8 m cable
AJSJ02		Flue gas sampling probe handle with 3 m cable
AJPT01		Interchangeable 180 mm tip for AJSJ01 handle, maximum temperature 400 °C
AJPT02		Interchangeable 300 mm tip for AJSJ01 handle, maximum temperature 600 °C
AJPT03		Interchangeable 750 mm tip for AJSJ01 handle, maximum temperature 800 °C
AJPT04		Interchangeable 1000 mm tip for AJSJ01 handle, maximum temperature 1200 °C
AJPT05		Interchangeable 300 mm flexible tip for AJSJ01 handle, maximum temperature 600 °C
AJEX01		3 m extension cable for smoke sampling probes with handle AJSJ01
AJCP01		External unit for passive sample treatment, for NO2 and SO2 measurement, compatible with AJSJ-- probe (probes with interchangeable tip for NOVO)
AATT01		"L" shaped Pitot Tube. 300 mm length, 6 mm external diameter. Without thermocouple
AATT02		"L" shaped Pitot Tube. 800 mm length, 6 mm external diameter. Without thermocouple





**Bluetooth Printer  
AAST04**

**CHEMIST 100 BE GREEN  
WARRANTY: 2 YEARS ON  
INSTRUMENT AND GAS  
SENSORS**



**Seitron Smart Analysis**



## **CHEMIST 100 BE GREEN UP TO 3 SENSORS**

### **PORTABLE COMBUSTION ANALYZER**

**B/W Backlit LCD (50 X 50 Mm)**

**15 Preprogrammed Fuels  
(Including Wood, Pellets, Biogas And Coal)**

**Rechargeable Lithium Ion Batteries**

**IR Communication**

**Qr Code To Acquire Analysis With Smartphone**

**Draught Measurement (Optional)**

**Tightness Test (Optional)**

#### **EVERY KIT INCLUDES:**

- Instrument
- 300 mm Smoke Probe with 2 m cable
- Water trap with dust filter, stainless steel fittings and silicon hose
- Combustion air temperature Probe
- Preassure Measures Kit
- Power Adapter and International Plug
- Hard plastic kit case
- Quick Guide
- Calibration Certificate

## MAIN FEATURES

- Precalibrated gas sensors
- Self diagnostic function with sensors status
- QR code generation
- Automatic recognition of condensing boiler
- Internal memory for 5 analysis
- Up to 10 hrs. autonomy of continuous operation
- Dimensions:

Analyzer 70Hx60Lx170D mm, weight 0,35 Kg

Kit 122Ax406Lx290D mm, weight 2,35 Kg

## MEASURED VALUE

- Flue gas temperature and Temperature Differential
- Outdoor air temperature and room temperature
- Differential Draft and Pressure
- CO in the environment

## CALCULATED VALUES

- Boiler efficiency, including condensation
- Stack losses






FEATURES	101	101 S	102	102 S	103	103 S
O2 Sensor	✓	✓	✓	✓	✓	✓
CO/H2 Sensor	✓	✓	✓	✓	✓	✓
NO Sensor	-	-	-	-	✓	✓
NOx Calcolated	-	-	-	-	✓	✓
Expandable to 3 sensors	-	-	✓	✓	✓	✓
Draft measurement with internal sensor (optional)	-	-	✓	✓	✓	✓
Gas pipe tightness (optional)	-	-	✓	✓	✓	✓
Gas pipes volume automatic calculation (optional)	-	-	✓	✓	✓	✓
Kit with Bluetooth Printer	-	✓	-	✓	-	✓
Thermal Paper Roll	-	✓	-	✓	-	✓



GAS	CODE	RANGE	RESOLUTION	PRECISION	
O2 *	AACSE50	0...25% v/v	0.1% vol	±0.2% vol	
CO high immunity H2 with NOx filter	AACSE58	0...4000 ppm	1 ppm	±20 ppm ±5% ±10%	0 .. 400 ppm 401 .. 4000 ppm 4001 .. 8000 ppm
NO **	AACSE60	0...2000 ppm	1 ppm	±5 ppm ±5% v.m. ±10% v.m.	0 .. 100 ppm 101 .. 1000 ppm 1001 .. 2000 ppm

\* : Sensor replaceable by the user



\*\* : Sensor available only for replacement on CHEMIST 103 BE GREEN

## Gas Analysis Probes

CODE	PHOTO	DESCRIPTION
AASF51A		180 mm flue gas sampling probe, cable length 2m, maximum temperature 400 ° C, without anti-condensation unit
AASF62A		300 mm flue gas sampling probe, cable length 3m, maximum temperature 600 ° C, without anti-condensation unit
AASF71A		180 mm flue gas sampling probe, cable length 1.5m, maximum temperature 400 ° C, without anti-condensation unit
AASF72A		300 mm flue gas sampling probe, cable length 1.5m, maximum temperature 600 ° C, without anti-condensation unit
AASL05A		300 mm flue gas sampling probe, cable length 2m, maximum temperature 600 ° C, without anti-condensation unit

CODE	PHOTO	DESCRIPTION
AASJ07		Smoke suction probe handle Without tip - length. Cable: 1.8 meters
AASJ08		Smoke suction probe handle Without tip - length. Cable: 3 meters

## Printers and Consumables

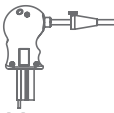


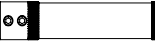


CODE	PHOTO	DESCRIPTION
AARC10		Long life plain thermal paper roll 57x30
AAST04		Thermal printer with Bluetooth connection



## Accessories for Residential Applications

CODE	PHOTO	DESCRIPTION
AACT001		Silicone conical fitting 44 - 22 mm (for tightness test)
AACT002		Silicone conical fitting 32 - 18 mm (for tightness test)
AAKT05		Kit for tightness test with 4 ways manifold, manual pump, 100 ml syringe, hoses, 1 silicone conical fitting
AARA01		Threaded 9 mm diameter fitting, 1/4" gas coupling, 1/4" to 1/8" gas nipple (for tightness test)
AARA02		Gas valve hose adapter: d.i. 7 mm
AASA08		Outdoor air temperature 200 mm TcK probe, with 2 m cable

## Accessories for Industrial Applications



CODE	PHOTO	DESCRIPTION
<p>Accessories for industrial measurements, high temperatures and particularly dirty smokes</p> <div>  +  +  +  </div> <p> <b>AAxxx</b> Gas Analysis Probe         <b>* AACTA03A</b> Water Trap         <b>AASP01</b> Guard shield         <b>AASF02</b> Stainless steel filter with adapter       </p>		
AATL01		S probe with clamp for 8mm tips, for use on waste systems
AACP01		External unit for passive sample treatment, for NO2 and SO2 measurement, compatible with AASJ probe--

\* : If not included in the probe AASFxxx

## SPARE REPLACEMENT PARTS

CODE	PHOTO	DESCRIPTION
AAPB13		Rechargeable Li-Ion battery, 3,7 V 2.6 mAh
AAKA02		Power Adapter with international plug, USB A / USB B with 2 m cable
AACFA01		Fine dust filters for AACTA03 (5 pcs. package) Dimensions 12x32 mm
AACTA03A		Water trap with dust filter, stainless steel fittings and silicon hose suitable for all combustion analyzers

## CASE, HOLSTER AND ACCESSORIES

CODE	PHOTO	DESCRIPTION
AACR09		Hard plastic kit case
AASM07		Rubber holster

## CALIBRATION CERTIFICATE

COD	DESCRIPTION
<b>CER012</b>	ISO 9001 calibration certificate for 2 sensors analyzers
<b>CER013</b>	ISO 9001 calibration certificate for 3 sensors analyzers

To ensure your and your customers' safety, please remind that the current legislation imposes that all measuring instruments must be calibrated by a lab and certified every 12 months.

**UNI 10389-1:2009** – Combustion analyzers

**UNI 11137:2019** – Manometers and analyzers in use also for gas plants leak tests

**UNI 10845:2018** – Manometers and analyzers in use also for open chamber boilers draft