CESA 40

Wirbel Laborgeräte

Computer Controlled Rapid Determinator CESA 40 with 20-time automatic sample transfer was designed for quick and easy determination of **sulphur and carbon** in coal, coke, oil, gypsum, cement, soils, plants, peat, tobacco, shampoo, metal and other materials.

- High solid state infrared system
- IBM-compatible PC incl. Multiscan color monitor and printer
- High temperature furnace (0° C - 1550° C) incl. physics, patented auto sample transfer unit and electronic balance
- Individual measure range
- Made in Germany
- 1 year warranty
- Definitely worth the call

SPECIFICATIONS OF THE CESA 40

Measuring range:	0,001 % S to 100 % S 0,001 % C to 100 % C other measure range possible
Solution:	0,001 %
Accuracy:	+- 1 % for most samples
Analysis time:	60 - 90 sec., depending on sample
Gas required:	Oxygene 99,5 %
Pressure:	approx. 2 bar
Gas flow:	approx. 2 l/min
Electric power:	220 V / 50 - 60 Hz / 16 A / 6 A

Furnace

Temperature range:	0° C to1550° C
Solution:	1° C
Display:	Digital

Chemical

H2O Absorber:	Magnesiumperchlorat
Dust trap:	Quarzwool

Dimensions

Computer:	width: 57 cm	height: 17 cm	depth: 44 cm
Furnace and physics:	width: 80 cm	height: 36 cm	depth: 45 cm

Weight

Computer:	approx 24 kg
Furnace and physics:	approx 18 kg

Short Description Rapid Computer Controlled Determinator CESA 40

Rapid Computer Controlled Determinator CESA 40 with 20-times automatic sample transfer to determine **sulphur and carbon** in coal, coke, oil, gypsum, cement, seils, plants, peat, tobacco, shampoo, metal and other materials.

With the help of your Computer Controlled Determinator you can get quick and reliable determination. Industrial production processes are becoming more and more automated. The features of this modern Determinator consists of an IBM-compatible Computer with color-monitor and printer, electronic balance, and maintenance physics (Infrared-measuringesystem) with up to 20-time automatic sample transfer.

Operation and Analysis

Incert your samples #1 up to #20, in a ceramic boat. Place the ceramic boat on top of the electronic balance. Reset balance to zero. Insert Sample material into the ceramic boat. The balance will accept samples from 20mg to 999mg.
Next place the ceramic boat into the Sample carousel on any free position (#1 up to #20).

The only operator action is the preparation of samples and placing the ceramic boats into the carousel!

The system is self-calibrating. Start the system by computer dialog. The pneumatic-cylinder will move the sample-boat into the combustion-furnace. The sample will combust under oxygen at 1300°C.
The oxygen carries the combustion gases, containing $S0_2$ (sulphur)and /or containing $C0_2$ (carbon) through dust and moisture traps to a flow controlled unit, and then with a constant flow of combustion-gases through the infrared Systems.

The infrared systems send electrical signals via analog-digital converters to the personal computer.
At the end of every cycle the pneumatic-cylinder will throw out the ceramic boat. All important parameters like combustion-gasflow, combustion-curve, results, time, the name of the operator etc., will show up on the color monitor and will also be saved to the hard-drive. There is a graphic printer connected to the system to print the results.

The system is measuring continuosly during every cycle.
One cycle from start of analysis to end is approx. 90 seconds.

The maintenance of the traps, combustion-tube and the filters need little service. The maintenance of the traps, combustion-tube and the filters need little Service.

Technical data may change. There is patent pending for the auto-sample-loader-unit.
by Wirbel Laborgeräte.