

CESA 40 CHN

Wirbel Laborgeräte



Computer Controlled Rapid Determinator CESA 40 CHN with 20-time automatic sample transfer was designed for quick and easy determination of **carbon, hydrogen and nitrogen** in coal, coke, oil, gypsum, cement, tobacco, sediments, dirt, stones, rapper, humus, graphite, food, fertilizer and other material.

- High solid state infrared system
- IBM-compatible PC incl. Multiscan colormonitor 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 CHN

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|------------------|--|
| Measuring range: | 0,0001 % C to 100 % C 0,0001 % H to 100 % H 0,0001 % N to 100 % N other measuring ranges possible |
| Solution: | 0,0001 % |
| Accuracy: | +/- 1 % for most samples |
| Analysis time: | 60 - 90 sec. |
| 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

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|--------------------|-----------------|
| Temperature range: | 0° C to 1550° C |
| Solution: | 1° C |
| Display: | Digital |

Chemical

| | |
|----------------------------|----------------------|
| H ₂ O Absorber: | Magnesium perchlorat |
| Dust trap: | Quarzwool |

Dimensions

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

Weight

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|----------------------|---------------|
| Computer: | approx. 24 kg |
| Furnace and physics: | approx. 18 kg |

Short Description Rapid Computer Controlled Determinator CESA 40 CHN

With this Computer Controlled Elementary Determinator CESA 40 CHN with up to 20-times automatic sample transfer you can get quick and reliable determinations of Carbon, Hydrogen and Nitrogen in organic materials like coal, coke Oil, gypsum, cement, tobacco, sediments, earth, dirt, stones, rappers, humus, graphite, food, fertilizer and other materials.

Easy Operation allows you to operate this computer by semi-skilled workpersons.

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 are 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 of CHN

Insert your CHN-samples #1 up to #20 in a ceramic boat. Place it on the balance. The computer keeps the weight and other parameters in memory. Insert the ceramic boat into the sample carousel. You also can use glazed ceramic boats. All samples are combusted individual at temperatures of 950 °C in a quartztube. Oxygen carries the combustion products through traps to remove dust and to the infrared and conductivity measuring System. 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 importantes parameters like combustion-gasflow, combustions-curve, results, time, the name of the Operator etc., will show up on the color monitor and will also be saved to the hard-disc. There is a graphic printer connected to the system for printing the results.

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

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.**