rapid MAX N exceed

MAXimize your protein analysis

Ease of use

High data quality

High sample throughput

Low cost per sample



elementar

EXCELLENCE IN ELEMENTS



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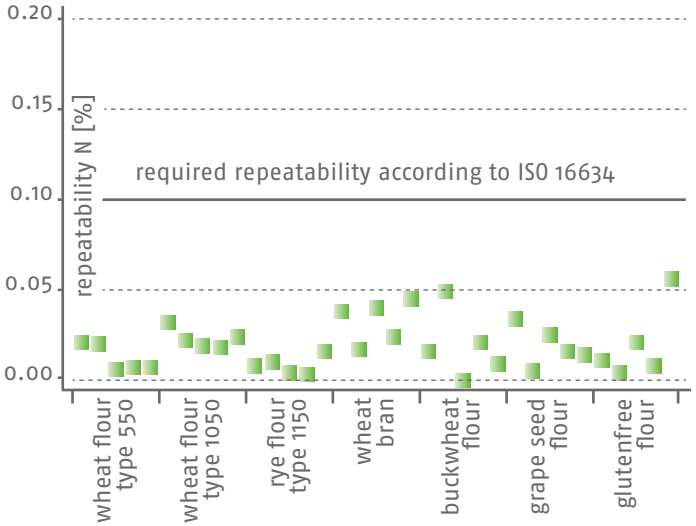
Simplified sample handling

KEY FEATURES

- Ease of use
- Simplified sample preparation
- Lowest cost per sample
- Argon as carrier gas (helium optional)
- EAS REDUCTOR® for more than 1,000 samples
- Fast analysis (5 min.)
- 300 measurements per day

Increased laboratory efficiency at significant lower price per sample. The rapid MAX N exceed is the first N / protein analyzer according to the Dumas method utilizing the highly successful EAS REGAINER® technology in combination with crucible-technology.

Designed for 24 / 7 unattended operation, the instrument addresses the needs of any high-throughput laboratory facing a wide range of sample types and weights. The rapid MAX N exceed stands for outstanding precision, sensitivity, and sample flexibility.



Outstanding repeatability for the analysis of different grains according to ISO 16634 using the rapid MAX N exceed. Sample weight: 500 mg, carrier gas: argon.

Ease of use

Save valuable time in sample preparation. The unique post-combustion technology ensures the complete digestion of even challenging species that are usually difficult to combust. Grinding or milling can therefore often be omitted without affecting reliable data quality.

Sample flexibility

The upright crucible design ensures an optimal combustion of any kind of liquid samples, such as milk, beer, soft drinks, juice, soy sauce, etc. Combined with the unique post-combustion technology, reliable, matrix-independent, high-quality data is achieved. Solid samples of 1 g organic or 5 g soil can be measured with outstanding precision and accuracy.



DUMAS, THE METHOD OF CHOICE

All elemental analyzers from Elementar are designed for minimal sample preparation and secure, unattended 24 / 7 operation. They use the safe, simple, and environmental friendly Dumas principle. No boiling of concentrated acids, no hazardous waste, and no extensive cleaning of glassware is required, in contrast to the wet chemical, time-consuming Kjeldahl method. Results including sample preparation and digestion in approximately five minutes! In many application areas, Dumas is the standard method, e.g. for the determination of N / protein in milk, milk products, and cereals.

Highest sample throughput

The rapid MAX N exceed offers the fastest N / protein determination in 5 minutes. In conjunction with the 90 position autosampler, 300 samples per day can be measured. With the proprietary EAS REGAINER technology, it is now possible to run more than 1,000 samples without the need to exchange reducing agent. Thus, customers can enjoy outstanding low maintenance intervention for industry-leading system uptime.

Future-proof investment

Thanks to the outstanding robustness and longevity, all analyzers include a 10 year warranty on high temperature combustion furnace and thermoconductivity detector (TCD) cell. With our well-known, long-term oriented dedication to technical support, Elementar provides spare parts for a minimum of 10 years after the end of production. This results in outstanding low total cost of ownership and gives customers confidence in return of investment.



EAS REGAINER TECHNOLOGY

Traditionally, combustion instruments use heated metals (copper, tungsten) to bind excess oxygen and to reduce formed nitrogen oxides to N_2. This resulted in typical reduction metal lifetimes of several hundred samples. Elementar developed a new (patent pending) method which lowers the maintenance dramatically. In continuous flow, the EAS REDUCTOR is regenerated during each combustion phase by the inexpensive EAS REGAINER so that the instrument can be used for the analysis of more than 1,000 samples before replacing the EAS REDUCTOR is necessary. In conjunction with the use of argon as carrier gas, this drastically reduces cost per sample.

N / protein analysis has never been easier!

SUBSTANCE	WEIGHT [mg]	PROTEIN [%]	ABS. SD [%]
CATTLE FEED	588	18.5	0.110
PET FOOD	500	21.43	0.201
YOGHURT	1,000	3.05	0.156
GERMAN SAUSAGES	500	11.44	0.145
PARMESAN CHEESE	500	45.03	0.549
WHEAT FLOUR	500	11.12	0.052
GLUTEN-FREE FLOUR	500	3.98	0.074
MILK	1,500	3.13	0.025
NPK FERTILIZER*	100	1.61	0.031
MANURE*	1,500	0.06	0.002

Carrier Gas: Argon, n ≥ 6 repl.

* Values for total nitrogen

QUALITY YOU CAN TRUST

Our consumables and spare parts are designed to meet the highest quality standards and reliability. They are certified and validated in accordance with international norms and standards. We do not compromise on quality of our parts and chemicals – this is the prerequisite of a guaranteed long lifetime of our instruments.

NORMS AND STANDARDS

The rapid MAX N exceed is in accordance with the majority of international food, feed and fertilizer standards such as ISO 16634-1, ISO 16634-2, ISO 14891, ICC 167, EBC 3.3.2, EBC 4.3.2, EBC 8.9.2, EBC 9.9.2, AOAC 990.03, AOAC 992.15, AOAC 992.23, AOAC 993.13, AOAC 997.09 as well as a manifold of national standards, e.g. Lufa and DIN.

IDEAL SOLUTION FOR

- Private food production facilities
- Food analysis contract laboratories
- Public food and farming laboratories
- Academic research groups

SAMPLE TYPES ANALYZED

- Food & beverage
- Food supplement
- Animal feed
- Pet food
- Fertilizer

Ease of use

Easy, labor-saving instrument operation and sample preparation. Simplified maintenance.

High data quality

Outstanding precision and accuracy through high performance combustion. Matrix-independent results. Longterm stability of calibration.

High sample throughput

Designed for 24 / 7 unattended operation. Industry-leading system uptime for highest laboratory efficiency.

Low cost per sample

Low consumption of reducing agent and oxygen. Utilization of well-priced carrier gas alternatives to helium.

Elementar – your partner for excellent elemental analysis

Elementar is the world leader in high performance analysis of organic and inorganic elements. Continuous innovation, creative solutions and comprehensive support form the foundation of the Elementar brand, ensuring our products continue to advance science across agriculture, chemical, environmental, energy, materials and forensics markets in more than 80 countries.

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