VELP SCIENTIFICA
Lab Solutions

NDA 702 Dual Carrier Gas Nitrogen Analyzer

Food&Feed Line

Analysis in a Flash with the VELP Nitrogen/Protein Analyzer

- Can operate with Argon or Helium as carrier gas
- Fully Automated: totally unsupervised and independent of user's capabilities
- Flexible and Versatile: optimal for several sorts of sample
- High Productivity: non-stop performance and moderate running costs

NDA 702 is a new conception nitrogen/protein Dumas analyzer, ensuring **excellent performance** on both solid and liquid samples and equipped with the **TEMS™** technology:

Time Saving - Unparalleled technology, results in 3-4 minutes.

Energy Saving - Excellent engineering, low consumption.

Money Saving - Limited cost per analysis, less gas and reagents used (**LoGas™** and **DriStep™**).

Space Saving - Just one slim unit required for the whole analysis.

NDA 702 is **designed to last** and to **operate continuously**, even 24/7, whilst providing a **very low detection limit** (**0.001 mg N**, when using Helium) and superlative precision. The instrument includes an **autosampler** that can manage up to 30 samples (stackable to 117).

NDA 702 gives the possibility to **choose between Helium or Argon**, without the need for replacing any part. After years of increasing prices and supply chain interruptions, obtaining Helium, the conventional carrier gas, has become more and more difficult and expensive, especially in some countries. The desire to replace Helium with a more easily accessible carrier gas has intensified and become reality.

NDA 702 benefits go further, as the dedicated software **DUMASoft™** has been improved for a clearer communication and enhanced control, including some new features, being now multi-lingual (languages downloadable), offering average, SD, RSD without the need to create a report, temperature and pressure in different formats (°C/°F and bar/psi), plus assign-name function on calibration curves.

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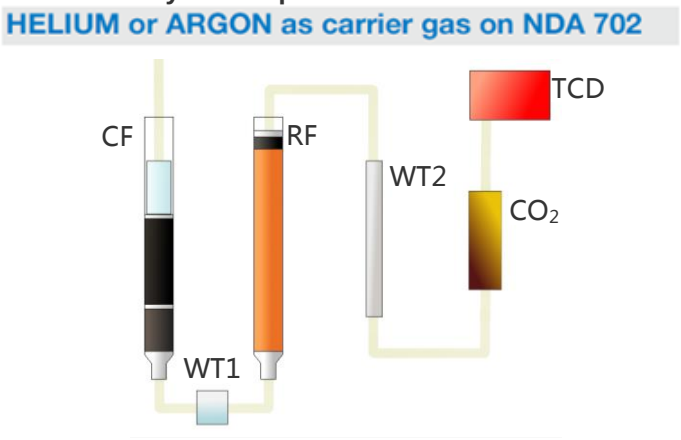
In the **Dumas combustion method**, the encapsulated sample is burnt at a high temperature, in the presence of catalysts in a controlled oxygen atmosphere. The combustion gas, CO_2, H_2O, NO_x, passes through the reduction furnace where NO_x are reduced to N_2. The H_2O and CO_2 are separated and the elemental nitrogen is measured with a Thermal Conductivity Detector (TCD). The whole procedure takes from 3 to 4 minutes.
The samples need to be suitably homogenized, in order to maximize results' precision and to analyze a representative part.

NDA 702 Analysis Flowpath



CF = Combustion Reactor
WT1 = Water Trap (Physical)
RF = Reduction Reactor
WT2 = Water Trap (Chemical)
CO_2 = CO_2 Auto-regenerating Traps
TCD = Thermal Conductivity Detector

Industry – Application Fields:

- **Food, Feed** & **Beverage** industries - cereals, dairy products, meat, fish, animal feed, infant food, drinks, etc.
- **Environmental** and **Agriculture** industries - organic matters, soils, water, leaves, etc.
- **Pharmaceutical** and **Chemical** industries - plastics, oils, petroleum, etc.

Technical Data	Description
Method of analysis:	Dumas method / Combustion
Detector:	Innovative autocalibrating TCD (no reference gas required)
Sample weight:	up to 1g
Autosampler capacity:	up to 4 discs, 30 positions each
Reproducibility (RSD):	< 0.5% for EDTA standards approx. 100 mg (9.57% N)
Recovery :	> 99.5%
Detection limit:	0.001 mgN (He); 0.01 mgN (Ar)
Combustion temperature:	1030 °C / 1886 °F
Helium (He) / Argon (Ar):	purity 99.999% (grade 5.0)
Oxygen (O_2):	purity 99.999% (grade 5.0)
Helium (He) / Argon (Ar) pressure:	2 bar
Oxygen (O_2) pressure:	2 bar
Interfaces:	USB, RS232
Power:	1400 W
Power supply:	230 V / 50-60 Hz
Weight:	54 kg / 119 lb
Dimensions (WxHxD):	655x510x410 mm (655x690x410 mm including autosampler) 25.8x20.1x16.1 in (25.8x27.0x16.1 in including autosampler)
Ordering information Code No	**Description**
F30800080	NDA 702 Dual Carrier Gas Dumas Nitrogen Analyzer

Your authorized agent:

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