CN802

Carbon Nitrogen Analyzer

VELP SCIENTIFICA
Analytical Instruments
Raised To Excellence

ermes

A Single Analyzer for a Wide Variety of Applications

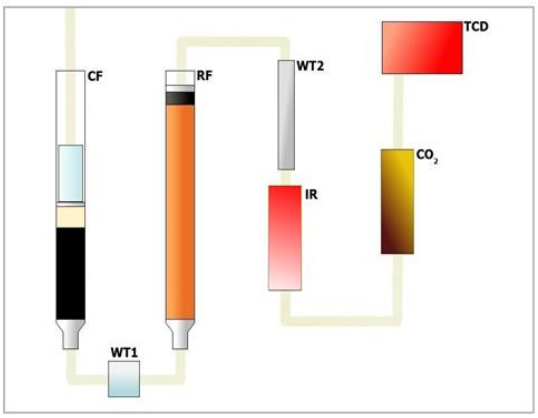
- Extremely accurate and precise Carbon/Nitrogen determination in 3-4 minutes
- Determination of TC, TOC (after acidification), TIC, TN and Carbon/Nitrogen Ratio
- Helium and Argon as carrier gas
- Easy to use thanks to the included powerful dedicated Software
- Control and calculation of C:N Ratio, Reports and Real Time result graph
- Designed to work continuously and unattended 24/7
- Robust design guaranteeing long-term investment
- Monitor and control the instrument anytime, anywhere with VELP Ermes cloud platform
- Compliant to recognized Official Methods: AOAC, DIN, ISO, EN, CEN, EPA and more

Multiple Parameter Determination in the Easiest Way

The determination of Carbon and Nitrogen and especially their proportion to each other is a fundamental analysis in the agricultural and environmental samples. The **VELP CN 802** is a versatile solution ideal for applications including **soils, food, feed, starches, wastewater, sediments and filtering residues**.

The powerful **software of the CN 802** controls the instrument making laboratory work simple without the need of specially skilled operators. All the information are easily accessible and visible at a glance. The automatic calculation of C:N ratio, the possibility to choose between a series of preinstalled methods and other smart features will guide the operator to perform an accurate analysis of the most common sample types.

The **CN combustion method** starts with a combustion furnace (**CF**) to burn the sample, obtaining elemental compounds. Water is removed by a first physical trap (DriStep™), positioned after the combustion (WT1), and a second chemical one (WT2). Between the two, the elemental substances passed through a reduction furnace (RF). The innovative **NDIR (Non Dispersive Infrared) Detector** accurately measures the CO_2 concentration that the instrument is able to convert into Carbon quantity. The flow then passes through the auto-regenerative CO_2 absorbers (CO_2) only permitting Nitrogen to be detected by the LoGas™ Thermal Conductivity Detector **(TCD)**, therefore not requiring a reference gas. The whole process takes 3-4 minutes per sample.



TECHNICAL SPECIFICATIONS	
METHOD OF ANALYSIS:	Combustion Method
DETECTOR:	N = TCD (Thermal Conductivity Detector) C = NDIR Detector (Non Dispersive Infrared)
SAMPLE WEIGHT:	up to 1g
AUTOSAMPLER CAPACITY:	up to 4 discs, 30 positions each (up to 117 samples)
REPRODUCIBILITY (RSD):	< 0.5% for EDTA standards approx. 100 mg
RECOVERY :	> 99.5%
DETECTION RANGE C:	ppm – 150 mgC
DETECTION RANGE N:	ppm – 200 mgN
NITROGEN DETECTION LIMIT (ABSOLUTE VALUES):	0.001 mgN (He); 0.01 mgN (Ar)
CARBON DETECTION LIMIT (ABSOLUTE VALUES):	0.01 mgC
COMBUSTION TEMPERATURE:	1030 °C / 1886 °F
HELIUM (HE):	purity 99.999% (grade 5.0)
OXYGEN (O_2):	purity 99.999% (grade 5.0)
HELIUM (HE) PRESSURE:	2 bar
OXYGEN (O_2) PRESSURE:	2 bar
INTERFACES:	USB, RS232
CONNECTIVITY:	Cloud via Wi-Fi and LAN
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)

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