Introduction

The GDANA Fully Automatic Kjeldahl Nitrogen Analyzer integrates key functions including automatic alkali and acid dosing, automatic diluent addition, distillation and titration, digestion tube drainage, solution level monitoring, over-temperature protection, automatic cleaning and waste discharge, and result calculation, enabling a highly automated and standardized Kjeldahl analysis workflow.

The new-generation N810 Water-cooling-free Fully Automatic Kjeldahl Nitrogen Analyzer breaks away from the conventional external water-cooling design. By adopting optimized materials and structural engineering, it enhances analytical accuracy and efficiency while improving instrument reliability. Its innovative air-cooled heat exchanger with a titanium tube structure significantly reduces the cost of external water-circulating equipment and saves water resources.



Technical Specifications

		 N810
Functions		
Automatic reagent addition		√
Automatic distillation		√
Automatic titration		√
Automatic cleaning		√
Automatic calculation	**Nitrogen content**	√
	Protein content	√

Automatic Distillation & Condensation Functions	
Water-free distillation	No external water supply required for condensation
Condenser	Titanium tube air-cooled heat exchanger
Intelligent temperature control	Automatically adjusts the condenser temperature based on ambient conditions to ensure complete ammonia condensation without loss, while preventing over-condensation that could cause air moisture to condense and drip, and minimizing unnecessary energy consumption
Distillation modes	Supports both “alkali-first then distill” and “distill-first then alkali” operation modes
Distillation Time	Continuously adjustable from 0 to 1000 min
Steam Flow	Adjustable from 0% to 100%
Delayed Distillation	Delay function adjustable from 0 to 120 min
Atmospheric Pressure Compensation	Pre-boiling point correction to save waiting time
Steam Generator	Food-grade stainless steel with double-layer vacuum insulation for heat retention
Automatic Titration Functions	
Titration Modes	Supports both “titration during distillation” and “titration after distillation” modes
Color Titration	Blue → Red Green → Red Yellow → Red
Detection Range	0.1-250mg/N
Reproducibility	RSD≤1.0%（1-250mgN）
Recovery	99-101%（1-250mgN）
Titration Accuracy	Standard: 0.5μL/step (25mL Burette) Optional: 0.2μL/step (10mL Burette) Optional: 0.1μL/step (5mL Burette)
Titration Pump Calibration	√
Automatic Titration Functions	
Full Tubing Cleaning Mode	Cleans all tubing in the instrument; recommended after long periods of inactivity or when tubing is contaminated
Kjeldahl Tube Cleaning Mode	For cleaning the Kjeldahl digestion tube
Burette Cleaning Mode	For cleaning the titration burette when changing titrant or when the inside is contaminated; when changing acids, the tubing may need to be cleaned 2–3 times
Alkali Pipe Cleaning Mode	For cleaning the alkali reagent pipe
Boric Acid Pipe Cleaning Mode	For cleaning the boric acid reagent pipe
Receiver Cup Cleaning Mode	For cleaning residual liquid in the receiver cup
Kjeldahl Tube Waste Disposal Mode	For removing residual liquid from the Kjeldahl tube
Software & Data Management	
Touchscreen	10-inch Android
Method Library	Built-in
Data Storage	≥2,000,000 pieces of data
Three-level permission management	Built-in three-level user management; Administrator, Supervisor, Operator roles separated to prevent misoperation and data tampering

Output format	XLS, XML, PDF
Transmission interface	USB, LAN, RS232, Wi-Fi, Bluetooth
System Updates	Software updates via USB without uninstalling; device automatically recognizes and installs update packages
Idle Standby	Device enters low-power mode after a period of inactivity
Safety Functions	
Presence Detection	Automatic safety door monitoring and Kjeldahl tube presence detection to prevent safety risks caused by misoperation
Temperature Monitoring	Multiple sensors monitor distillation and condensation temperatures in real time
Liquid Level Monitoring	Equipped with multiple liquid level sensors for boric acid, water, sodium hydroxide, and the steam generator to prevent experiment interruption due to incorrect liquid levels
Protection Measures	Multiple safeguards including over-temperature shutdown, low liquid level alarm, and automatic pressure release
Data Security	Compliant with FDA 21 CFR Part 11
Operating Conditions	
Operating Temperature	10-30°C
Power supply	220V±10%, 50Hz
Power	2500W
Status Indicators	Red (Alarm), Green (Running), Pink (Standby)
Dimensions	460L*450W*760L(mm)
Weight	50kg
Standard Accessories	
Kjeldahl digestion tube	20
5L Reagent bottle	2
10L Reagent bottle	1
Kjeldahl digestion tube rack	1
Reagent bottle rack	1
Drainage pipe	5m
Insulated gloves	1 pair
Kjeldahl Catalyst Tablets (Default K_2SO_4 : $CuSO_4 \times 5H_2O$ = 15 : 1, if you need other specifications, please contact local sales)	500 tablets
Standard acid bottle	2
Burette	25mL (standard) 10mL (optional) 5mL (optional)
Power cable	1
User manual	1
Warranty card	1

Optional accessories	
NDS-20 Kjeldahl N-Digester	20-position
WD-20 Waste Exhaust Device	20-position
WQ-20 Exhaust Gas Absorption Device	Reduces tap water consumption

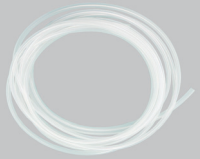
Water-cooling-free Fully Automac Kjeldahl Nitrogen Analyzer

	Part No.	Product Name	Description
	**GDN-N810**	N810 Water-cooling-free Fully Automatic Kjeldahl Nitrogen Analyzer	/

Pre-treatment Equipment

	Part No.	Product Name & Model	Description
	**GDN-NDS-20**	NDS-20 Kjeldahl N-Digester	/
	**GDN-WD-20**	WD-20 Waste Exhaust Device	/
	**GDN-HDDY-TGJ-20**	Kjeldahl Digestion Tube Rack	/
	**GDN-HDDY-WQ-20**	WQ-20 Exhaust Gas Absorption Device	/

Consumables

	Part No.	Product Name	Description
	**GDN-HDDY-DDG-300-300**	Kjeldahl Digestion Tube	Volume: 300ml Length: 300mm
	**GDN-HDDY-P-4L**	10L Reagent Bottle	Bottles for storage distillation water
	**GDN-HDDY-P-2L**	5L Reagent Bottle	Bottles for storage boric acid and sodium hydroxide reagen
	**GDN-HDDY-SP**	Standard Acid Bottle	Bottle for storage standard acid
	**GDN-HDDY-JG-6.4*9.6**	Alkali Delivery Pipe	Inner diameter: 6.4mm Outer diameter 9.6mm
	**GDN-HDDY-PG-6.4*9.6**	Boric Acid Delivery Pipe	Inner diameter: 6.4mm; Outer diameter 9.6mm
	**GDN-HDDY-DG-0.8*1.6**	Standard Acid Delivery Pipe	Transparent Teflon pipe Inner diameter: 0.8mm; Outer diameter: 1.6mm
	**GDN-HDDY-DG-5**	Drainage Pipe	5m

	Part No.	Product Name	Description
	GDN-HDDY-ST	Insulated Gloves	/
	GDN-HDDY-CHJ-15-1	Kjeldahl Catalyst Tablets	500 tablets/box (Default K_2SO_4 : $CuSO_4$ x $5H_2O$ = 15 : 1, if you need other specifications, please contact local sales)

Accessories and Maintenance Supplies

	Part No.	Product Name	Description
	GDN-HDDY-DD-25	25mL Burette	Standard accessory
	GDN-HDDY-DD-10	10mL Burette	Optional accessory
	GDN-HDDY-DD-5	5mL Burette	Optional accessory
	GDN-HDDY-QYFL	Gas-liquid Separator	/
	GDN-HDDY-DDP	Titration Bottle	/
	GDN-HDDY-PJ	Reagent Bottle Rack	It can hold 2 x 5L and 1 x 10L reagent bottles, and monitor the liquid level
	GDN-HDDY-DYX	Power Cable	/

Customer Questionnaire

If you are interested in our instruments, please fill in the following information and send it to our local agent or email the form directly to sales@rogetscientific.com. We will reply to you within two working days.

Please tick the box in the brackets【 】

Application (sample type)

Eg:【√】Agricultural and Food： Analysis of Nitrogen Content in Milk

【 】Environmental Monitoring: _____

【 】Agricultural and Food: _____

【 】Product Quality Research: _____

【 】Scientific Research: _____

【 】Disease Prevention and Control: _____

【 】Others _____

Daily detection sample quantity

【 】0-10 samples

【 】10-50 samples

【 】＞50 samples

Single sample weight

【 】Solid≤6g

【 】Liquid≤20mL

【 】other_____

Table of Configuration

Please arrange the required system

Instruments

Quantity	Part No.	Product Name	Description

Consumables and Accessories

Quantity	Part No.	Product Name	Description

Send Offer to

Company	
Contact person	
Address	
Tel.	
E-mail	
Web	