YBOTECH

K18 Fully Automated Kjeldahl Nitrogen Analyzer

Automatic Functions: Reagent addition, distillation, titration, digestion tube and titration burette waste removing, discharging & washing, calibrating, fault detecting, solution level monitoring and outcome calculating all can be realized fully automatically. Standard data-processing software (the control software is also optional).

Main Features:

1. Adding acid, adding alkali, distillation, titration, calibration, liquid level detection, waste discharging & washing (digestion tube and titration cup), calculation and print can all be realized fully automatically.
2. Parameter setting autonomously, match with 35 tube position auto sampler, unattended automatic operation.
3. Whole new multicore ARM operating system, 10-inch high-definition color touch LCD screen, real-time monitoring and displaying experimental process.
4. Multi safety monitoring function. monitoring the safety of safety door, digestion tube, steam pressure, cooling water temperature, distillate temperature, water level of steam generator and lack of water, insure the experiment safe.
5. Linear motor titration system, 1.0μl titration accuracy, achieve dynamic titration and variable speed titration, could accomplish the distillation, titration, calculation, data transmission synchronically. the external titration cup with protection real time visible and with anti-interference capability.
6. Multi data output modes: WIFI, RS232/RS485, double USB2.0 interface. data processing by Word, Excel software.
7. Convenient Windows operating system, Powerful data traceability software, Classified management, operation, Audit function, Generating comprehensive test and analysis report, Comply with the regulations of “GLP” and “GMP”.
8. Unattended automatic stop self-cleaning function.
9. Titration color can be calibrated automatically or manually. The titration endpoint determined by high accuracy 16-bit three primary color digital signal color sensor.
10. PTFE(Teflon) bellows pump, acid and alkali resistance and corrosion resistance, Resistance to particle plugging structure, steady liquid addition controlled by stepper motor, negative pressure suction without danger.
11. PTFE(Teflon) splash-proof bottle, resistance to high temperature and strong alkali, no ammonia leakage, ensure high recovery rate.
12. The liquid level detection of bucket ensures no lack of liquid during experiment.
13. The K18B apply to ammonium nitrogen and nitrate nitrogen.

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14. The K18C apply to ammonium nitrogen, nitrate nitrogen and high content nitrogen (the sample nitrogen content higher than 45%)

Application Standard:

- EN ISO 5983-2 (AOAC 2001:11) which applies to Protein/Nitrogen in Animal Feeds, Cereals, Forages, Oil seeds, Pet Foods and Fish Meal
- ISO 20483 determination of the nitrogen content of cereals, pulses and derived products
- ISO 8968-2 (IDF/FIL 20-2) determination of the nitrogen content of liquid milk, whole or skimmed, by the block-digestion principle
- ISO 8968-3 (IDF/FIL 20-3) determination of the nitrogen content of liquid, whole or skimmed milk, semi-micro method
- ISO 8968-4 (IDF/FIL 20-4) determination of the non-protein nitrogen content of liquid milk, whole or skimmed.
- ISO 937 (AOAC 981.10) Meat and meat products - Determination of nitrogen content (Reference method)
- ISO 1871 Nitrogen content of Agricultural food products
- ISO 3332 Ammonium sulphate for industrial use
- ISO 3188 Starches & derived products
- ISO 5663/DIN 38409H11 Water quality, Kjeldahl Nitrogen
- ISO 5664 Water quality, ammonium
- ISO 1656 (1996E) Rubbers Rubber, raw natural and rubber latex, natural - Determination nitrogen content

Technical Parameter:

Model	K18A	K18B	K18C
Function	General Nitrogen	General Nitrogen Nitrate Nitrogen	General Nitrogen Nitrate Nitrogen High Nitrogen
Analysis Time	3-8 minutes/sample	GN: 3-8 min/sample NN: 10-18 min/sample	GN: 3-8 min/sample NN: 10-18 min/sample HN: 4-8 min/sample
Measuring Range	0.1mg-240mg N		0.1mg-280mg N
Recovery	≥99.5%		
Reproducibility	1% RSD		
Distillation Capacity	~ 40ml/min		
Burette Resolution	1.0μl/step		
Sample Volume	Solid≤6g Liquid≤25ml		
Steam Flow Setting	0-100% adjustable		
Water Consumption	1.5L/min at water temp of 25℃ 0.5L/min at water temp of 15℃		
Data Storage	10,000,000 sets of overall test data (instrument internal storge); Unlimited (cloud storage)		

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Power Supply	220V/50HZ
Power Consumption	1800W
Dimensions	500 x 460 x 780 mm
Weight	52 kg

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