

# **AUTOMATIC KJELDAHL PROTEIN/ NITROGEN ANALYZER TT-K1160**



The Automatic Kjeldahl Protein/ Nitrogen Analyzer TT-K1160 is recognized for its smart features, efficiency, energy conservation, and data-sharing capabilities, providing users with innovative experiences.

This product Automatic Kjeldahl Protein/ Nitrogen Analyzer TT-K1160 finds broad application in industries such as food processing, feed production, tobacco, animal husbandry, soil fertility analysis, environmental monitoring, medicine, agriculture, scientific research, education, quality assurance, and other areas requiring nitrogen or protein determination.

## APPLICATIONS

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- **Food & Beverage Industry:** Determines protein content in dairy, meat, grains, beverages, and processed foods for nutritional labeling, product development, and quality assurance.
- **Feed & Agriculture:** Measures nitrogen and protein in animal feed, soil, and fertilizers to optimize formulations, crop yield, and soil fertility monitoring.
- **Tobacco Industry:** Analyzes nitrogen levels in tobacco leaves and finished products to support research, product consistency, and production control.
- **Pharmaceuticals & Medicine:** Enables protein and nitrogen analysis in drug development, formulation studies, quality control, and pharmacopeial testing.
- **Environmental Monitoring:** Evaluates nitrogen compounds in water, soil, and sludge to ensure pollution control, sustainability, and regulatory compliance.
- **Scientific Research & Education:** Provides dependable systems for universities, academic labs, and R&D centers requiring accurate nitrogen determination.
- **Quality Control Laboratories:** Streamlines batch testing and reporting in compliance with AOAC, ISO, USP, PA, and GMP standards for efficient certification.

## FEATURES

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- Automatic Kjeldahl Protein/ Nitrogen Analyzer TT-K1160 is Automated with full functionality for distillation, titration, self-testing for faults, calculations, printing, waste disposal, and capable of integration with a 24-position autosampler for complete unattended operation. This setup streamlines the entire experimental process, ensuring simplicity and high efficiency.
- Meets FDA 21CFR Part 11 and GMP standards. Features include authorization and account management, audit trails, password aging, and editing protection, ensuring compliance and robust security measures.
- With high precision, the burette accuracy can be adjusted from 0.2 to 1 microliter per step.

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## Benefits:

- The Automatic Kjeldahl Protein/ Nitrogen Analyzer TT-K1160 features a new metal A condensing unit with ultra-high efficiency reduces water usage by up to 50%.
- Its 24-position autosampler operates with fully programmed processing, eliminating the need for manual supervision and reducing labor costs.
- Real-time distillation and titration, coupled with variable-speed titration technology, cut down experiment times by up to 30%.

## Specifications:

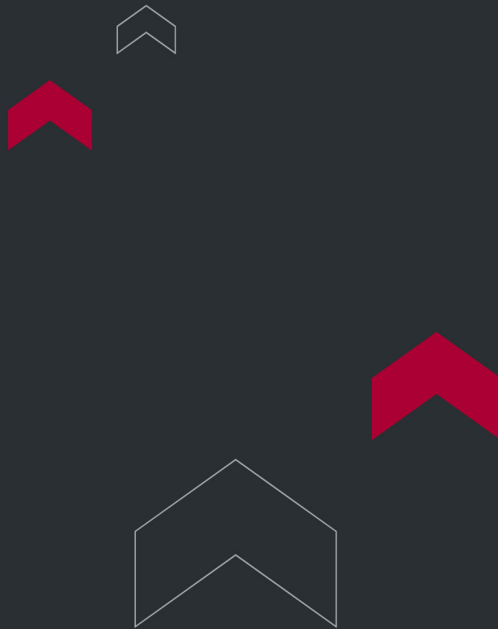
- **Enhanced Efficiency:** Incorporates side-distillation titration and variable-speed technology, reducing experiment durations by one-third.
- **Advanced Operating System:** Features a new Android OS, user-friendly and robust, Featuring a 10-inch high-definition color touch screen for real-time control of the entire experimental process.

- **Batch Testing Functionality:** Simplifies batch sample experiments, streamlining operations and reducing test times.
- **Real-time Temperature Monitoring:** Monitors condensate effluent temperature in real time, ensuring complete sample condensation for accurate and reliable test results.
- **Privilege Grading:** Enables data traceability management, meeting GMP and 21CFR Part11 requirements.
- **Enhanced Titration Module:** Utilizes a titration module for the receiving liquid, ensuring more accurate results and higher precision in titration.
- **Real-time Titration Graph Display:** Displays online monitoring of the entire experimental process, allowing real-time adjustments for improved accuracy and efficiency.
- **24-Position Autosampler:** The Automatic Kjeldahl Protein/ Nitrogen Analyzer TT-K1160 autosampler, with no separate power supply needed, directly connects to the K1160 fully automatic Kjeldahl analyzer, enhancing system-wide energy efficiency.
- **24-bit Injection Port:** Separates cleaning and test positions, eradicating the risk of cross-contamination during distillation.
- **Large Solvent Tank:** Features an ultra-large capacity solvent tank capable of accommodating 500 experimental analyses in a single fill, significantly improving laboratory efficiency.
- **Customizable Testing Reports:** Enables customizable testing reports in PDF format or for printing.
- **Direct Weight Integration:** Allows direct output of sample weights from the balance into the K1160 for analysis (specified models).
- **Adjustable Color Sensor:** Adaptable through RGB models, compliant with standards such as AOAC, ISO, PA, USP, and more.

## TECHNICAL SPECIFICATIONS

|                 |                                    |
|-----------------|------------------------------------|
| Measuring range | 0.1mg □ 240mg N                    |
| Analysis time   | 3□ 8min/sample                     |
| Reproducibility | Average value relative error ±0.5% |
| Recovery        | ≥99.5%                             |

|                                               |                                                                         |
|-----------------------------------------------|-------------------------------------------------------------------------|
| Burette volume                                | 1.0μL/step optional: 0.2μL/step and 0.4μL/step                          |
| Sample capacity                               | solid≤5g/sample, liquid≤20mL/sample                                     |
| Water consumption in the distillation process | 0.5L/min                                                                |
| Data storage capacity                         | 1 million groups                                                        |
| Power supply                                  | 220VAC±10%, 50Hz (110V is also available. Please specify when ordering) |
| Power                                         | 2Kw                                                                     |
| Net weight                                    | 83.8 lbs.                                                               |
| Dimensions                                    | 18.1 inches X 14.2 inches X 28.5 inches                                 |
| <b>K1124 Auto Sampler</b>                     |                                                                         |
| Capacity                                      | 24 samples per batch                                                    |
| Rotor speed                                   | ≥0.04r/s                                                                |
| Sampling speed                                | ≥40mm/s                                                                 |
| Tank capacity                                 | 4×15L                                                                   |
| Connection                                    | CAN                                                                     |
| Voltage                                       | 24V DC                                                                  |
| Rated Power                                   | 40W                                                                     |
| Dimension(L×W×H)                              | 36.2 inches X 24.6 inches X 35.7 inches                                 |
| Weight                                        | 176.4 lbs.                                                              |



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