

HFBTE HFBTE2025062702

HFBTE Ultrasonic Milk Analyzer Meter User Manual

Model: HFBTE2025062702 | Brand: HFBTE

1. INTRODUCTION

The HFBTE Ultrasonic Milk Analyzer Meter is an instrument designed for multi-indicator analysis and testing of physical and chemical aspects of liquid dairy products. It offers a wide range of functions and parameter measurement options to assess the quality and nutritional value of dairy products.

This analyzer is primarily used for the determination of fat, protein, lactose, non-fat solids, density, water content, freezing point, ash, and temperature in dairy products. It is suitable for the analysis of cow's milk, goat's milk, UHT milk, and other milk types. This instrument is ideal for monitoring the quality of dairy products in modern dairy farms, fresh milk purchasing stations, and small to medium-sized dairy enterprises.

2. KEY FEATURES

- Android intelligent system for easier and faster operation.
- 7-inch touch screen for enhanced operation and interactive experience.
- Exquisite appearance design with streamlined internal piping.
- Requires less sample volume, offers good test repeatability, and low power consumption.
- Utilizes a high-quality peristaltic pump to prevent milk scale residue.
- Built-in automatic cleaning function, requiring only simple cleaning and maintenance without chemical reagents.
- Integrated thermal printer for flexible editing and printing of test reports.
- Features Wi-Fi networking and Bluetooth connectivity for wireless data upload to a platform or PC.
- Configuration of a data management platform for long-term preservation of uploaded data, enabling long-term and short-term data analysis and management.

3. PACKAGE CONTENTS

Upon unpacking, verify that all the following items are included:

- HFBTE Ultrasonic Milk Analyzer Meter
- Power Adapter and Cable
- User's Manual
- Sample Bottles (multiple)
- Thermal Printer Paper Rolls



Figure 3.1: Package contents including the analyzer, manual, power adapter, and sample bottles.

4. SETUP

1. **Unpacking:** Carefully remove the milk analyzer and all accessories from the packaging. Inspect for any visible damage.
2. **Power Connection:** Connect the provided DC power adapter to the machine's power interface. Plug the AC power cord into a standard 220V or 110V AC power supply. The power indicator light will turn red when charging and green when fully charged or not connected to the machine.
3. **pH Sensor Connection (if applicable):** If your model includes a pH sensor, connect it to the designated port on the instrument.

5. OPERATING INSTRUCTIONS

1. **Sample Preparation:** Pour milk samples into two separate sample bottles.
2. **Initial Cleaning (Self-Clean):** Place a sample bottle containing purified water under the testing port. On the touch screen, navigate to the 'Sample Detection' interface and click 'Self Clean'. Confirm by clicking 'Clean'. The instrument will clean residual sample solution. Repeat until discharged water is no longer turbid.
3. **Sample Placement:** After initial cleaning, place a sample bottle containing the milk to be tested under the testing port. If using a pH sensor, place the sensor into another sample bottle containing milk.
4. **Select Testing Item:** On the 'Sample Detection' interface, select the appropriate milk type (e.g., Cow Milk, UHT Milk) as the testing item.
5. **Start Detection:** Click 'Start Detection'. The instrument will begin the analysis process. This process typically takes a few minutes.
6. **View Results:** Once testing is completed, click on the detection result area to view relevant data, including Fat, Protein, SNF, Lactose, Inorganic Salt, Water Admixture, Ice Point, Density, Sample Temperature, Conductivity, and pH.
7. **Save and Print:** Use the 'Save' button to store the detection data or the 'Print' button to generate a thermal printout of the results.

Video 5.1: Detailed demonstration of the HFBTE Milk Analyzer's operation, including sample preparation, self-cleaning, detection, and result display.



Figure 5.1: The analyzer's touch screen showing various milk parameters after detection.

6. MAINTENANCE

- 1. Instrument Pipeline Cleaning:** The instrument features a built-in automatic cleaning function. After each testing session, perform a self-clean cycle using purified water to remove any residual milk samples. For long-term use or when milk scale residue is observed, use a mild acidic cleaning solution followed by multiple purified water rinses. It is recommended to clean the instrument at least 10 times with purified water to achieve optimal cleaning.
- 2. Cleaning the Sensor Probe:** After each use, clean the pH sensor probe (if applicable) thoroughly with purified water and wipe it dry with a soft, lint-free cloth.
- 3. Cleaning Instrument Casing:** The instrument casing can be cleaned with a soft cloth dampened with a neutral cleaning agent. Avoid abrasive cleaners or solvents.
- 4. Storage:** When not in use, store the instrument in a clean, dry environment away from direct sunlight and extreme temperatures.

7. TECHNICAL SPECIFICATIONS

Parameter	Detection Range	Accuracy
Fat	0.01% ~ 45%	±0.06%
Protein	2% ~ 15%	±0.15%
Lactose	0.01% ~ 20%	±0.2%
Non-fat solids	3% ~ 15%	±0.15%
Density	1000 ~ 1160 kg/m ³	±0.3 kg/m ³
Water addition rate	0% ~ 70%	±3%
Freezing point	-0.400°C ~ -0.700°C	±0.005°C
Ash	0.4% ~ 4%	±0.05%
Milk temperature	5°C ~ 40°C	±1°C

General Specifications:

- **Brand:** HFBTE
- **Model Name:** HFBTE2025062702
- **Material:** Plastic
- **Item Weight:** 4 Kilograms
- **Display Type:** Touch Screen
- **Cleaning Method:** Automatic cleaning

8. TROUBLESHOOTING

If you encounter any issues with your HFBTE Ultrasonic Milk Analyzer Meter, please refer to the following general troubleshooting steps:

- **No Power:** Ensure the power adapter is securely connected to both the instrument and a working power outlet. Check the power indicator light.
- **Inaccurate Readings:** Perform a self-clean cycle multiple times with purified water. Ensure samples are properly prepared and within the recommended temperature range. Calibrate the instrument if necessary (refer to advanced settings in the full manual).
- **Printer Not Working:** Check if thermal paper is correctly loaded and if there are any paper jams. Ensure the printer settings are configured correctly on the touch screen.
- **Touch Screen Unresponsive:** Try restarting the device. If the issue persists, contact customer support.

For more detailed troubleshooting, please consult the comprehensive user manual or contact HFBTE customer support.

9. WARRANTY AND SUPPORT

This HFBTE Ultrasonic Milk Analyzer Meter comes with a standard manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions, including coverage duration and claim procedures.

For technical assistance, product inquiries, or warranty claims, please contact HFBTE customer support through the

contact information provided in your product documentation or on the official HFBTE website. When contacting support, please have your model name (HFBTE2025062702) and purchase details readily available.